

# PSYCHOLOGICAL ABSTRACTS

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## GENERAL

2982. [Anon.] Henry Phipps: a man of vision. *Ment. Hygiene*, 1930, 15, 1-2.—An appreciation of Mr. Phipps, quoted from a resolution adopted by the National Committee for Mental Hygiene. He made the National Committee its first large gift and enabled it to begin active work.—E. M. Ligon (Union).

2983. Barrett, J. F. *Elements of psychology*. Milwaukee: Bruce, 1931. Pp. xxv + 419. \$2.50.—After a chapter on the historic background of the subject comes one on "mental faculties." Sensation, imagination, sensory memory and instinct come next in order. The higher mental functions follow with a treatment of desires, thought, choice and emotions. Habit and character are treated not only generally, but also with respect to their moral values. This is followed by a discussion of the nature and origin of the soul and of immortality. A short chapter is devoted to the union of soul and body, wherein the author agrees with St. Thomas that the soul is wholly present in the whole body and all its parts. It is created at the moment of conception and possesses a life independent of the body and different from it. Its substance is incorporeal, immortal, and imperishable. God will never annihilate it, and it is the only principle of life in man. The latter part of the volume deals with the abnormal mind, the subconscious, mental influence on physical functions, the psychology of learning and applied psychology. Each chapter has a summary, true-false test questions, and questions for review. There is a glossary of scientific terms and an index.—J. P. Hylan (Stoneham, Mass.).

2984. Boring, E. G. *The psychologist's circle*. *Psychol. Rev.*, 1931, 38, 177-182.—The dilemma between behaviorism and introspectionism is expressed as a circle with immediate experience on the left and physiological events on the right half. The view that physical entities are derived from immediate experience is expressed by an arrow pointing to the right, and is labelled "Wundt." The opposite view, that phenomenal processes are dependent on the nervous system, is expressed by an arrow pointing left and labelled "Avenarius." But Boring suggests a triangle in place of the circle. Then experience or actuality, the given, becomes the primary angle from which the two forms of scientific reality, psychic reality and physical reality, are developed by inference.—A. G. Bills (Chicago).

2985. Bradbury, D. E. *A review of the published writings of Bird Thomas Baldwin*. *Psychol. Bull.*, 1931, 28, 257-268.—Baldwin's earliest contributions

were in general psychology; but the bulk of his work has been in child psychology. This latter interest began with the defective child, changed to the delinquent and the adolescent, and finally to the preschool age child. A total of 130 references are cited, including abstracts of speeches (see Hossfeld's bibliography, V: 2995).—J. F. Dashiell (North Carolina).

2986. Brown, J. F. A note on Dr. Klein's plea for eclecticism. *Psychol. Rev.*, 1931, 38, 182-185.—In reply to Klein's criticism of psychology that it is more burdened with system-making than other natural sciences, the author points out the important constructive rôle which system-making has played in the development of physics, and is still playing. The excess of systems in psychology is attributed to two things: the kind of personalities who enter psychology, and the youth of the science.—A. G. Bills (Chicago).

2987. Dallenbach, K. M. A method of marking the skin. *Amer. J. Psychol.*, 1931, 43, 287.—A method of tattooing is recommended for marking the "spots" on the skin, when studying cutaneous sensitivity.—D. E. Johannsen (Rochester).

2988. Dallenbach, K. M. The psychological laboratory of Cornell University. *Amer. J. Psychol.*, 1931, 43, 295-300.—Description, with diagrams, of the modifications which have been recently made in the Cornell laboratory.—D. E. Johannsen (Rochester).

2989. Evans, J. E. A tachistoscope for exposing large areas. *Amer. J. Psychol.*, 1931, 43, 285-286.—Description of an apparatus which permits the exposing of large areas for tachistoscopic observation.—D. E. Johannsen (Rochester).

2990. Fernberger, S. W. Herman H. Young: 1837-1931. *Amer. J. Psychol.*, 1931, 43, 304.—Notice of the death of Dr. Herman H. Young, February 21, 1931, at Bloomington, Indiana.—D. E. Johannsen (Rochester).

2991. Ferree, O. E., & Rand, G. An instrument for testing the light and color sense with important features of standardization and control. *Amer. J. Psychol.*, 1931, 43, 275-283.—Description of the structure and method of using an instrument for testing sensitivity to light and color, with a list of its advantages.—D. E. Johannsen (Rochester).

2992. Ford, A. *Group experiments in elementary psychology*. New York: Macmillan, 1931. Pp. vi + 241. \$1.25.—The experiments are designed to fit into the regular classroom procedure. It is the

author's intention to stress good experimental procedure and mastery of technique rather than an exhaustive treatment of the subject. The experiments cover the following subjects: central tendencies, variability, correlation, probable error, the introspective problem, the behavior of unicellular animals, the nature of the nerve current, reflex behavior, the maturation of instincts, analysis of spectral light, complementary colors, color-blindness, tonal timbre, resonance, the static sense, the conditioned response, reaction time, reasoning, organic sensations in emotion, nervous system, color mixture, temperature sensations, Weber's law, rote learning, trial and error learning, control of movement, fluctuation of attention, the span of attention, interference in attended acts, perceptive illusions, binocular perception, reasoning, Gestalten, the intelligence test, visual imagination test, motor aptitude test, employee rating scale, the significance of phrenological measurements, the lie detector, subnormal mentality, movement analysis, attention to advertising headlines.—*M. B. Jensen* (Michigan Central State Teachers College).

2993. Griffith, C. R. A flexible form of the Carr slot-maze. *Amer. J. Psychol.*, 1931, 43, 283-285.—A modification of the Carr maze, in which the wrong path is indicated by having a light flash or a bell ring. This is accomplished by having contact points in the walls of the maze which are connected to switches, which can then be either open or closed. The pathway can thus be changed as quickly as the switches can be thrown.—*D. E. Johannsen* (Rochester).

2994. Griffith, C. R. A new method of administering shocks in animal experimentation. *Amer. J. Psychol.*, 1931, 43, 286-287.—Description of a method of administering punishment without changing the factual cues, as is done by the usual type of grill.—*D. E. Johannsen* (Rochester).

2995. Hossfeld, M. Bibliography of the published writings of Bird Thomas Baldwin. *Psychol. Bull.*, 1931, 28, 269-276.—134 titles listed. (References are made to this list in Bradbury's review, see V: 2985.)—*J. F. Dashiell* (North Carolina).

2996. Humphrey, G. A note on the applicability of Le Chatelier's rule to biological systems. *Psychol. Forsch.*, 1930, 13, 365-367.—The author wishes to modify his previous paper on this topic (see V: 177) as follows: "In general, in the paper referred to, by 'system' should be understood 'stable system.'" Making this change, however, does not impair the validity of his general argument.—*J. F. Brown* (Colorado).

2997. Kline, L. W. The Skidmore College laboratory of psychology. *Amer. J. Psychol.*, 1931, 43, 300-301.—Description, with diagrams, of the laboratory at Skidmore College.—*D. E. Johannsen* (Rochester).

2998. Langfeld, H. S. A response interpretation of consciousness. *Psychol. Rev.*, 1931, 38, 87-108.—The author first distinguishes between the "response

theory" and "stimulus-response behaviorism," the former emphasizing and the latter ignoring what goes on between stimulus and overt response. The latter is a "method of study," the former an "interpretation of mind." He then defines the metaphysical position of response psychology as "a frank acceptance of the identity theory of the relation of consciousness to physiological processes." He traces the historical background of response psychology, mentioning Bain, Ribot, Lewes, Dewey, James, etc., and attributes its modern formulation to Washburn and Holt. Certain empirical evidence is marshalled in support of the theory from the fields of visual motor perception, in which kinesthetic strains determine the perception of movement, depth, etc., and from the rôle of attention in learning, showing that associations are formed through the efferent side of the arc, and from higher thought processes, to the effect that thought is incipient speech response and action. Two fundamental problems remain unsolved by response psychology: (1) that of the secondary qualities, and (2) the problem of "the determination of what final common path the afferent impulses are to take in the special cases of audition and vision."—*A. G. Bills* (Chicago).

2999. Reymert, M. L. The Mooseheart Laboratory for Child Research. *Amer. J. Psychol.*, 1931, 43, 302-303.—Description, with diagrams, of the laboratory at the Child City of Mooseheart, Illinois.—*D. E. Johannsen* (Rochester).

3000. Ritchie, A. D. The relations of mental and physical processes. *Mind*, 1931, 40, 171-187.—Philosophers and introspectionists have tended to regard mind as purely passive. Two important points often left out of accounts of sense awareness are that we are active when we perceive and that we are interested in the activity. The whole set of bodily events directly following the percept is entitled to be identified with it, hence meaning is constituted as much by the reaction as by the sense-impression. The cerebral hemispheres, far from being the termini of perceptions, are junctions of a special sort not to be mistaken for the total reaction-pattern, which includes afferent and efferent processes. What is properly mental is to be correlated with the out-going processes rather than with the in-going processes, because the former indicate the effect of the environment upon an organism. The most important correlate of thought is inhibition. Certain objections to the views advanced by the writer are taken up in the article.—*H. Helson* (Bryn Mawr).

3001. Buckmick, C. R. Thirty-eighth annual meeting of the American Psychological Association. *Amer. J. Psychol.*, 1931, 43, 292-294.—Report of the meetings held at the University of Iowa, December 29-31, 1930. Report of the officers elected for the present year, and a review of the program.—*D. E. Johannsen* (Rochester).

3002. Sibley, E. An apparatus for graphic portrayal of series of products or quotients without computation. *J. Amer. Statis. Ass.*, 1930, 25, 460-463.—(*Soc. Sci. Abst.* III: 8373).



3003. [Various]. Conference on individual differences in the character and rate of psychological development. (Iowa City, Iowa, December 28, 1930.) Washington: National Research Council, 1931. Pp. 73.—The conference of which this is the mimeographed report was held under the auspices of the Division of Anthropology and Psychology of the National Research Council. The papers presented by F. N. Freeman, F. L. Goodenough, J. A. Hicks, J. Peterson, G. D. Stoddard, and F. L. Wells, are separately abstracted. Discussions following the papers are reported, participated in by M. Bentley and K. Dunlap in addition to the conference members who presented papers.—E. R. Hilgard (Yale).

3004. Von Skramlik, E. Johannes v. Kries (1875-1928). *Zsch. f. Psychol. u. Physiol. Sinnesorg.*, 1929, 60, 249-255.—(Biol. Abst. V: 7000).

3005. Wallis, W. D. Der Einfluss der Geistesform auf Methode und Theorie. (The influence of mental configuration on method and theory.) *Zsch. f. Völkerpsychol.*, 1930, 6, 10-21.—(Soc. Sci. Abst. III: 8137).

3006. Wheeler, R. H., Perkins, F. T., & Bartly, S. H. Errors in recent critiques of Gestalt psychology. 1. Sources of confusion. *Psychol. Rev.*, 1931, 38, 109-136.—The authors argue heatedly that recent attacks on Gestalt psychology place it in a false light, and miss the main discrepancies between the "old" and "new" psychologies. First, the type of whole meant by a Gestalt is not a synthetic whole, but a unit which exists antecedently to synthesis. It is an entirely new type of unit, historically; "a whole as a principle and a cause and not as an effect or mere fact." Several sources of confusion among critics of Gestalt are expounded. The main attack is against Boring's article, *The Gestalt Psychology and the Gestalt Movement*, *Amer. J. Psychol.*, 1930, 42, 308-315. (See IV: 3741).—A. G. Bills (Chicago).

3007. Ziehen, T. Otto Binswanger (1852-1929). *Schweiz. Arch. f. Neur. u. Psychiat.*, 1929, 25, 171-174.—(Biol. Abst. V: 7018).

[See also abstracts 3109, 3120, 3159, 3181, 3190, 3227, 3283.]

#### SENSATION AND PERCEPTION

3008. Banerji, M. N. Synaesthesia. *Indian J. Psychol.*, 1930, 5, 147-159.—Records two cases, one of achromatic, the other of circumscribed synaesthesia. Concludes that the specific images of a synaesthesia undergo change, rearrangement, breaking up, and re-formation, particularly under shock and psychoanalysis. Richness of imagery is adjudged to be an expression of repression in the unconscious. In fact, synaesthesia is the result of a more or less permanent association whose roots lie buried deep in the unconscious.—L. A. Averill (Worcester State Normal School).

3009. Bourdon, B. Sur quelques influences pouvant favoriser ou gêner la vision simple binoculaire.

(Some influences possessing the power of facilitating or impeding simple binocular vision.) *J. de psychol.*, 1931, 28, 163-167.—The author possesses a slight diplopia which causes double vision on certain occasions and normal vision on others. Using a simple stereoscope, he attempted to determine the factors which facilitate or impede normal vision. The facilitating factors were: size, number, familiarity and luminous equality of the objects simultaneously presented in the stereoscope. Binocular vision was rendered difficult when the objects were small, few in number, different in brightness, and different in form.—N. L. Munn (Pittsburgh).

3010. Bowers, H. Studies in visual imagery. *Amer. J. Psychol.*, 1931, 43, 216-229.—The problem of the present study was to determine whether there is a consistent tendency for O's to over- or underestimate the clearness of visual images. In an effort to solve this problem the author constructed a photographic test scale. Prints of photographs of familiar objects, varying from perfect clarity to a blank, were pasted in serial order in a booklet. O's were instructed to imagine the perfect picture and then compare the image aroused with the photographs and rate its clarity with respect to them. A second test consisted of a series of nouns, the O's being instructed to imagine the object which each word represented; they were then asked to rate the image on a 6-point scale, the steps of which were verbally described. The third test consisted of 72 pictures, varying from perfect clarity to a complete blur, pasted beside a perfect print of the same object; the O's were asked to rate the blurred with respect to the perfect print, on the same scale as was used in Test 2. The reliability of the composite of these 3 tests was .96. The scores of 155 high school students form a normal distribution curve. On the basis of this battery a consistent tendency to over- or underestimate the clarity of visual images was discovered, but there was no evidence that this tendency was more pronounced in the case of images more subjectively aroused by words than in the case of those aroused by photographs.—D. E. Johannsen (Rochester).

3011. Brown, J. F. The visual perception of velocity. *Psychol. Forsch.*, 1931, 14, 199-232.—None of the numerous studies on the perception of movement have been primarily concerned with the perception of velocity. In the first section of this investigation, the attempt is made to survey the literature concerning the perception of velocity. In the second section the factors that influence phenomenal velocity are experimentally investigated. They are found to be: (1) the linear size of the movement field and of its single parts (length, breadth, size of the moving objects); (2) the structure of the surrounding field; (3) the direction of the movement relative to the subject; (4) the direction of the longer dimension of the object in its relation to the field dimensions; (5) the illumination of the movement field. In the third section the following theoretical conclusions are drawn: Velocity

is directly perceived and depends on laws that are not immediately deducible from either the retinal or the stimulus velocity. The results indicate that the explanation of seen velocity is to be sought in the theory of physiological Gestalten. The investigation has implications for the problems of the movement after-image, the perception of time and the movement thresholds.—*J. F. Brown (Colorado)*.

3012. Brown, J. F. On time perception in visual movement fields. *Psychol. Forsch.*, 1931, 14, 233-248.—In a previous investigation (see V: 3011) it was shown that phenomenal velocity depends on the structure of the visual field in which the movement occurs. The working hypothesis was set up that phenomenal velocity is equal to the quotient of the phenomenal space divided by the phenomenal time. This hypothesis was proven by taking five cases where field structure causes variation in phenomenal velocity and showing a corresponding variation in phenomenal time (i.e., the impression of duration gained by watching moving objects) or phenomenal space. In by far the greater number of cases the variation is found in the phenomenal time. These variations in the flow of phenomenal time are not isolated cases which could be explained as illusions, but are continuous variations caused by practically any change in the structure of the movement field. Filled time was generally found to be longer than unfilled time, but the ratio of this difference also depends on the structure of the movement field.—*J. F. Brown (Colorado)*.

3013. Brown, J. F. The thresholds for visual movement. *Psychol. Forsch.*, 1931, 14, 249-268.—The working hypothesis was set up that those structural factors which influence phenomenal velocity (see V: 3011), also influence the thresholds for movement in the same direction and by like amounts. The author designates as movement thresholds those stages where with increasing objective velocity, the perceived movement takes on new characteristics. The following thresholds were investigated: (1) the lower threshold, i.e., where one first perceives movement directly; (2) the phi threshold, i.e., where one perceives in addition to the real movement an apparent movement in the opposite direction; (3) the threshold for the apparent increase in number, i.e., where one first perceives a higher number of moving objects than the objective number; (4) the threshold for fusion, i.e., where one first perceives fusion. For each threshold and for each investigated field variation, results were obtained that closely approximate the ones predicted on the supposition that the working hypothesis was correct. The results were shown to hold for circular as well as linear movement.—*J. F. Brown (Colorado)*.

3014. Crawford, A. B., & Idgon, E. M. A case of solar blindness. *Amer. J. Psychol.*, 1931, 43, 269-274.—A central area of complete scotoma, due to over-exposure to the ultra-violet rays of the sun, was plotted. Although the colors used were not equated for saturation and brightness (Hering standard

papers were used), the area was found to be completely blind in part, and in part to respond like the periphery of the eye, i.e., with varying degrees of clearness and no color discrimination. It is suggested that the fovea and adjoining areas are evolutionally a later development, and consequently a more delicate mechanism, than the periphery. The action of the sun is conceived to have affected the more accurate and chromatic parts of the eye, leaving comparatively uninjured the harder structures.—*D. E. Johansen (Rochester)*.

3015. Ferree, C. E., & Rand, G. Visibility of objects as affected by color and composition of light. Part I. With lights of equal luminosity or brightness. *Person. J.*, 1931, 9, 475-492.—Stimulated by a desire to discover the specifications of the ideal printed page and of other working surfaces requiring high visibility, such as license plates, signals, and reading scales of instruments, the following investigation was made. (1) The physical factors which affect the visibility of objects are analyzed. (2) Possible methods are discussed for determining experimentally the kind and comparative extent of the effect of these factors. (3) The effects of two of the factors, namely, color and composition of light, are studied. This study is made under two conditions: (a) with lights of equal luminosity or brightness, and (b) with lights equalized both in luminosity and saturation of color. In one set of experiments spectrum light was obtained from a large, specially designed, monochromatic illuminator, in order to have a definite and specified composition of light of a high degree of purity. In another set of experiments colored light, complex in composition, was used. It was filtered light obtained from red, yellow, green, and blue dipped bulbs, spectrophotometered for composition. This light also was equalized in luminosity and saturation at the point of work. In a third set of experiments the light used was complex in composition, but of daylight quality, being obtained with a Macbeth artificial daylight filter. The functions tested include acuity, speed of discrimination, power to sustain acuity, and ocular fatigue. With reference to all of these functions it was found that the eye gives its best performance in the mid-region of the spectrum, but that light of daylight quality is more favorable than any color, even when of spectrum purity, for the discrimination of such details and relations to background as are found on the printed page. The eye apparently was not intended to work under what is ordinarily called colored light. Color in light seems to be especially trying to eyes suffering from pathological disturbances and other defects of vision.—(Courtesy *Person. J.*).

3016. Fischer, M. H., & Kornmüller, A. E. Optokinetisch ausgelöste Bewegungswahrnehmungen und optokinetischer Nystagmus. (Perception of motion based on the optokinetic sense and optokinetic nystagmus.) *J. f. Psychol. u. Neur.*, 1930, 41, 273-308.—*H. Marshall (Stanford)*.



3017. Fischer, M. H., & Kornmüller, A. E. Egozentrische Localization. II. Optische Richtungslokalization beim vestibulären Nystagmus. (Ego-centric localization. II. Visual localization of direction in vestibular nystagmus.) *J. f. Psychol. u. Neur.*, 1930, 41, 383-420.—H. Marshall (Stanford).

3018. Freeman, E. The achromatic sensitivity of the dark-adapted retina in relation to stimulus-distance. *Amer. J. Psychol.*, 1931, 43, 246-253.—The problem of the present study was to determine quantitatively the sensitivity of the dark-adapted retina to achromatic light, as a function of the distance. An apparatus for presenting minimal achromatic stimuli at different distances and at different angles is described. The results show sensitivity to be a function of stimulus-distance. At the fovea sensitivity decreases as stimulus-distance increases, although the size of the retinal image was constant; for eccentric positions ( $5^{\circ}$  to  $20^{\circ}$ ) the reverse is the case. Sensitivity also decreases quite regularly from fovea to periphery, but this decrease is rapid only for a stimulus-distance of 1 meter. At other distances it is very gradual. There was always a contradiction between the quantitative results and the qualitative reports for eccentric stimulation.—D. E. Johansson (Rochester).

3019. Freeman, E. Untersuchungen über das indirekte Sehen (speziell zur Analyse des Aubert-Foersterschen Phänomens). (Investigations in peripheral vision, particularly with regard to the analysis of the Aubert-Foerster phenomenon.) *Psychol. Forsch.*, 1931, 14, 333-365.—Two of the methods for determining visual acuity at the periphery of the retina, the method of separation (*Trennungsmethode*) and the method of displacement (*Verschiebungsmethode*), are discovered to be by no means equivalent. Only with the method of displacement is the Aubert-Foerster phenomenon found to occur. With the method of separation there is an opposite tendency. Qualitatively, however, objects at a greater distance (but of the same retinal size) appear less distinct than those nearer if the retinal area tested is at the maximal distance from the fovea. As we approach the fovea the visual acuity becomes greater for the more distant objects. Jaensch's explanation of the Aubert-Foerster phenomenon on the basis of the distribution of attention over the visual fields is therefore disproved. A historical summary of the investigation of the phenomenon is included.—J. F. Brown (Colorado).

3020. Gessler, H. Die Wärmeregulation des Menschen. (Temperature regulation in man.) *Ergeb. Physiol.*, 1928, 26, 185-234.—The evidence is reviewed and the conclusion reached that though the temperature of the blood stream and that of the central nervous system form part of the regulating mechanism, the finer control is exerted by means of nervous reflexes from sensations generated in the cold and warm spots of the skin.—(Biol. Abst. V: 7297).

3021. Griesbach, H. Ueber Druckempfindlichkeit der Haut unter normalen Bedingungen und bei kor-

tikaler Erregung und Ermüdung. (Skin-sensitivity to pressure under normal conditions, and in cortical irritation and fatigue.) *J. f. Psychol. u. Neur.*, 1930, 41, 329-341.—The field of the trifacial nerve is an excellent region for esthesiometric research. Normal thresholds vary for localization, age, and sex, and must be determined individually. The threshold decreases with cortical irritation and increases with fatigue. The left hemisphere of the brain fatigues with mental exertion; the right, with physical exertion. Since most nerves of sensation are crossed, fatigue will show up on the opposite side of the body. In a state of mental and physical rest the normal thresholds on both sides of the body are equal or approximately equal.—H. Marshall (Stanford).

3022. Häutle, M. Sehprüftafel-Beleuchtung. (Illumination of eye-test charts.) *Dtsch. opt. Woch.*, 1931, 17, 60.—Describes a compact light-projector for use in tests of visual acuity.—D. B. Judd (Bureau of Standards).

3023. Hirsch, L., & Schriever, H. Beitrag zur Sensibilität der Zunge, des Kehlkopfes und der hinteren Rachenwand. (The sensibility of the tongue, the larynx and the posterior wall of the pharynx.) *Zsch. f. Biol.*, 1929, 89, 1-20.—(Biol. Abst. V: 7450).

3024. Katz, D. Ueber die akustische Lokalisation bei Mensch und Tier. (Acoustic localization in man and animals.) *Sitzber. u. Abh. Naturforsch. Ges. Rostock*, 1927/29 (1930), 2, 9-11.—(Biol. Abst. V: 7452).

3025. Klughardt, A. Die Deutung und Erkennung der Farbensinnstörungen. (The meaning and recognition of abnormalities of the color sense.) *Dtsch. opt. Woch.*, 1931, 17, 109-113.—A concise treatment, 14 references.—D. B. Judd (Bureau of Standards).

3026. Koffka, K., & Sturm, M. Beiträge zur Psychologie der Gestalt. (Contributions to Gestalt psychology.) XX. A study of the movement after-image. *Psychol. Forsch.*, 1931, 14, 269-293.—Experiments of W. S. Hunter showed that the apparent direction of movement and not the actual direction determines the direction of the after-movement. Further investigation has shown this to be only one of several factors determining the direction of the after-movement. There is a variety of directions in the after-movement due to variation in the factors. These factors are: (1) reversal of the processes occurring during the observation of the original movement (Hunter's factor); (2) the field condition during the observation of the after-movement; (3) the anisotropy of our visual space; (4) the influence exerted by the form of the motion carrier on the direction of the movement. A distinction is made between the first factor, which represents a real force responsible for the after-movement, and the remaining factors, which are conditions constraining the action of this force or forces, as it is possible that this first factor may consist of two components, each a real force.—J. F. Brown (Colorado).

3027. Kopfermann, H. Psychologische Untersuchungen über die Wirkung zweidimensionaler Darstellungen körperlicher Gebilde. (Psychological investigations upon the action of two-dimensional representations of solid objects.) *Psychol. Forsch.*, 1930, 13, 293-365.—The three-dimensional appearance of a two-dimensional figure has been explained on the basis of experience and attention. Both of these hypotheses are shown to be untenable in this investigation, where in the transition from the two-dimensional to the three-dimensional type of perception certain Gestalt factors, which can be expressed in terms of general laws, determine the type of perception. The findings of the psychological analyses of several figures are checked and found correct in experiments for actual depth displacement. The thesis is advanced that these Gestalt factors are the cause rather than the effect of the distribution of attention.—J. F. Brown (Colorado).

3028. Kühl, A. Physiologisch-optische Kontrasterscheinungen bei astronomischen Beobachtungen. (Contrast effects of physiological optics in astronomical observations.) *Dtsch. opt. Woch.*, 1930, 16, 681-684.—D. B. Judd (Bureau of Standards).

3029. Luckiesh, M. Artificial sunlighting now challenges the sun. *Elec. World*, 1930, 96, 1035-1037.—Light for vision, ultraviolet radiant energy for health.—D. B. Judd (Bureau of Standards).

3030. Lythgoe, R. Dark adaptation and the peripheral color sensations of normal subjects. *Brit. J. Ophthalm.*, 1931, 15, 193-210.—An investigation of five subjects indicates that during dark adaptation color sensations are much less saturated and hue discrimination is less acute than in daylight vision. Even at the fovea dark adaptation causes difficulty in the recognition of certain hues. Three possible explanations of these results are suggested: (1) the mechanisms of color sensation (the cones) become less sensitive during dark adaptation; (2) the color sensations are obscured by the achromatic response of the rods, which become more sensitive under dark adaptation; (3) macular pigmentations and hemoglobin may introduce complications in the perception of colors.—H. Peak (Yale).

3031. Mayeda, K. Hearing of feeble-minded children. *Dai-nippon Jibiinko-ka Kai-ho*, 1929, 35, No. 8.—From 909 elementary school children diagnosed as feeble-minded by the test results of National Intelligence Tests, Scale A, Form 1, in Niigata elementary schools, 87 boys and 53 girls who scored the lowest were selected for a hearing test. Three groups of sound, S, O, U, M, and N were whispered at normal hearing distances (S at 6 meters, O and U at 2.5 meters, M and N at 4 meters). 52 heard the sounds normally, but 84 (60%) showed some difficulty in hearing (30% slight, 20% medium, 10% great difficulty). Further examinations showed that 18 (12.8%) had otitis, 28 (20%) sinus infections, 45 (32.1%) discharges, 89 (63.6%) adenitis, and 41 (30.7%) pharyngeal tonsilitis.—J. G. Yoshioka (Yale).

3032. Osborne, W. A. Eyeball movements in tests of visual acuity. *Nature (Lond.)*, 1930, 126, 96-97.—(*Biol. Abst.* V: 7458).

3033. Pichon, E. Essai d'étude convergente des problèmes du temps. (An attempt at a convergent study of the problems of time.) *J. de psychol.*, 1931, 28, 86-118.—A philosophical consideration of the concepts of time found in psychology, physics, mathematics, history, language, grammar, and psychiatry.—N. L. Munn (Pittsburgh).

3034. Renqvist, Y. Über Zuordnung von Bewegung und Bewegungswahrnehmung. (On coordination of movement and movement perception.) *Psychol. Forsch.*, 1931, 14, 294-331.—In this paper bodily movements and the perceptions coordinated with movement are investigated in various pathological cases (individuals blind from birth or with certain brain traumas) and the results compared with those for normal individuals. The concepts time and space are thus investigated from a psychological standpoint. Time is found to be the more primitive and deeper-lying perception, being essentially of the same nature in the pathological as in normal cases. Space perception on the other hand is cortically conditioned and therefore not so primitive, being derived from vision, static sensation, and motor response. Hence the variations from the normal in the pathological subjects.—J. F. Brown (Colorado).

3035. Strong, C. A. Is perception direct, or representative? *Mind*, 1931, 40, 217-220.—It is highly desirable that philosophy should confirm the plain man's view that he perceives things directly, and this the author tries to do.—H. Helson (Bryn Mawr).

3036. Strübin, F. Zur Frage der Chromoptometrie als Mittel für die Gläserbestimmung. (On the question of chromoptometry as a means of spectacle lens determination.) *Dtsch. opt. Woch.*, 1930, 16, 571-572.—Sources of error are discussed.—D. B. Judd (Bureau of Standards).

3037. Usnadze, D. Über die Gewichtstäuschung und ihre Analoga. (Concerning the size-weight illusion and its analogues.) *Psychol. Forsch.*, 1931, 14, 366-379.—Experiments show that the size-weight illusion is present when there is pressure alone without lifting. Also the inverse of the illusion (i.e., to blindfolded people the heavier of two equally large objects seems smaller) is demonstrated. The experiments invalidate the existing theories and an attempt is made to set up a new theory which will explain all the facts concerning the illusion and its analogues. This theory supposes that the perception of the disparateness of the size of the two objects affects the following weight perception in the same way as (according to Müller and Sehmunn) the perception of a constant difference in a series of weights causes an inversion in the perception of two like weights following the series.—J. F. Brown (Colorado).

3038. Walters, V. W., & Gundlach, B. H. Eye-movements and visual after-images. *Amer. J. Psychol.*, 1931, 43, 288-289.—After repeating Rexroad's



experiments with trained O's, the authors report that there is no necessary relation between eye-movements and after-images, and conclude that the image is dependent upon the chemical after-effects of retinal stimulation.—D. E. Johanssen (Rochester).

3039. Weber, C. O. Visual-motor coordination in concave and convex mirror space. *Amer. J. Psychol.*, 1931, 43, 254-260.—The problem of the present study was to throw some light on the effect of kinesthetic data on visual space perception. 9 S's were used. The first part of the experiment was to draw with closed eyes 5 squares, as nearly as possible 1 inch square, and then to select from a group of 30 squares and rectangles, squares 1 inch in size (5 trials). The figure produced kinesthetically was almost 50% smaller than the one produced visually. A training series which consisted of copying in a convex or a concave mirror a series of 20 figures, squares and rectangles, presented only by reflection in the mirror, followed. After this training S was required to repeat the first part of the experiment. The results show that the brief training period had markedly altered the perception of a 1 inch square. Regardless of whether the S had trained with the convex or with the concave mirror, the final trials showed an increase in the size of the square chosen visually or drawn kinesthetically. This is partly due to the general tendency to increase the size of a series of figures drawn. This effect is decreased by the convex mirror, which decreases the apparent size, and augmented by the concave mirror, which increases the apparent size. It is also found that after concave mirror-drawing S's conception of standard plane areas becomes enlarged, especially in height, whereas after convex training it becomes reduced; these effects are much more pronounced in the motor than in the visual sphere.—D. E. Johanssen (Rochester).

[See also abstracts 2987, 2991, 3071, 3073, 3217, 3222, 3249.]

#### FEELING AND EMOTION

3040. Hill, T. R. Emotion from the neurological point of view. *Brit. J. Med. Psychol.*, 1931, 11, 40-54.—After mention of the theories of James, McDougall, Shand, Lloyd Morgan, Koffka, Freud, Jung, Janet, Pavlov, the author concludes that all agree that mental life is composed of two stages or levels, a higher and a lower. The lower is fixed, inherited, and common to all the species; the higher is influenced by experience, is concerned with making adaptation variable, and is evolved from and contains the lower. Neurological evidence shows similar division of function between the cerebral cortex and the thalamus. Emotion, as the subjective aspect of instinct, experienced when instinctive behavior is obstructed, belongs to the lower level of activities. Organic diseases of the cerebral cortex and thalamus are discussed in relation to the disturbed balance between higher and lower processes. Constitutional factors are considered in their in-

fluence upon cortical and thalamic function.—E. R. Hügård (Yale).

3041. Mouchet, E. El mecanismo de la emoción. (The mechanism of emotion.) *Rev. de filos.*, 1929, 15, 308-346.—(*Soc. Sci. Abst.* III: 8139).

3042. Skaggs, E. B. A correction of the statement of sex differences in emotionality in "Studies in attention and emotion." *J. Comp. Psychol.*, 1931, 11, 325.—The statement in a previous article by the same author (*J. Comp. Psychol.*, 1930, 10, 375-419) that "The writer does not hesitate to say that our women were more emotional than the men subjects. They feared the electric shock much more than the men" (see IV: 4644) is corrected by the author. The statement was based upon a study of the introspective reports and upon general observation of the subjects and not upon a study of the tabulated figures themselves. A study of the tabulated measures, considering the relative amount of displacement from the normal in the case of the two sexes, indicates no such difference in Section II, and in Section III a study of relative displacements indicates that the men were more upset, assuming that the various measures actually indicated emotional upset. The discrepancy between introspective reports and tabulated data may be explained by an exaggeration of their emotional state by the women, or expression of an emotional state by other ways than those measured.—J. C. Spence (Clark).

#### ATTENTION, MEMORY AND THOUGHT

3043. Bills, A. G. Blocking: a new principle of mental fatigue. *Amer. J. Psychol.*, 1931, 43, 230-245.—The present experiment is a study of blocking (defined arbitrarily as a pause in the responses to a series of homogeneous mental tasks equivalent to 2 or more average responses). 50 advanced students acted as S's, and the tasks set were: alternate addition and subtraction, reversible perspective, color naming, opposites, and substitution. Kymograph records of time and errors were kept, so that the relation of the blocks to the total performance and to the errors could be seen. The results are similar for all types of material. The blocks, occupying the time of from 1 to 6 responses, occur with fair regularity, averaging about 3 per minute, although there are individual differences. Practice tends to decrease and fatigue to increase their frequency and size. In periods up to 1 hour there is no decrease in the actual number of responses per min., although the regularity is decreased. Individuals who respond rapidly have fewer and shorter blocks, and there is a constant tendency for errors to occur in conjunction with blocks. The results indicate that blocking, acting as an automatic safeguard which prevents the individual from working continuously, may explain the apparent absence of mental fatigue. It is suggested that the phenomenon is related to the refractory phase in nerve conduction, perhaps of a cumulative sort, in the central facilitative mechanism (attention wave).—D. E. Johanssen (Rochester).

3044. Basley, H. An attempt to isolate the factor of "attention." *Amer. J. Psychol.*, 1931, 43, 202-215.—Three problems were set in the present study: (1) Do current tests measure some special factor which can be called attention? (2) To what extent does this factor determine the performance of the tests? (3) To what extent is it involved in certain broader mental functions? Three tests of the type which measure the adequacy of attention directly in terms of accomplishment, and two of the type which make a secondary change in the course of the operation stand as the measure of attention, were used. Various intelligence measures were also at hand, Army Alpha, Otis, grades, etc. 68 undergraduates served as S's. Intercorrelations were computed; of the 40  $r$ 's between the 5 measures of attention, only 2 were as high as .32, and 12 were negative. The 990 tetrad differences involved in the correlations used were computed; the empirical median of the tetrads is .029, indicating that there is no group factor very prominently involved. There are, however, a few more large tetrad differences than should theoretically be expected. This slight evidence implies that some group factor is involved, but it is no proof that the factor is attention. The only general conclusion to be drawn is that the attention tests have little in common with each other or with the other tests used. "If attention is common in some degree in all the tests, the intelligence tests are probably the best measures of it."—D. E. Johansson (Rochester).

3045. Hollingworth, H. L. Effect and affect in learning. *Psychol. Rev.*, 1931, 38, 153-160.—The mystery attached to the "law of effect" is partly due to the confusion between "effect" and "affect." The law of affect describes "something within the subjective experience of the actor" and hence cannot explain. The law of effect, however, "may describe some objectively verifiable change" in the organism. Motivation may be described from three angles, to start by assuming either (1) that satisfaction and annoyance are on a par, or (2) that pleasure drives are primary, and annoyances merely interfere with these, or (3) that the annoyances are the primary facts and satisfaction consists merely in the removal of these irritants. The author accepts the third view. Irritants become linked to the activities whose effect is to eliminate them. All learning is "cue reduction," i.e., the reintegrative mechanism, whereby partial antecedents become effective in evoking the terminal act. Such a cue is the "initial irritant." Hence learning is, in a sense, due to the law of effect but not the law of affect.—A. G. Bills (Chicago).

3046. Jastrow, J. *Effective thinking*. New York: Simon & Schuster, 1931. Pp. 272. \$2.50.—"Thinking is no longer a monopoly controlled by a few capitalists of the intellect, but the privilege and duty of the many. It is for them that I have prepared this informal survey of the processes of thinking, under the strong conviction that the subject is ready for a renaissance of interest." The table of contents is as follows: I. Technique: (1) the com-

position of thinking; (2) patterns of thought; (3) cause and effect in the physical world; (4) cause and effect in the mental world; (5) the building-blocks of thought; (6) instinct, intuition, reason. II. Impediments: (1) prejudice and prepossession; (2) idols: subjective; (3) idols: objective; (4) the logic of superstition. III. Construction: (1) creative intelligence; (2) discoveries and inventions; (3) the limitations of intellect; (4) convictions and controversies; (5) logical hygiene. Chapter summaries, a brief bibliography and an index are also features of the book.—W. McTeer (Detroit City College).

3047. Squires, P. O. The evolution of the creative imagination. *Scient. Mo.*, 1931, 32, 447-453.—J. F. Dashiell (North Carolina).

[See also abstract 3053.]

## NERVOUS SYSTEM

3048. Allers, R., & Hochstädt, O. Über die Wirkung des Cocains auf das Zentralnervensystem. (Action of cocaine on the central nervous system.) *Zsch. f. d. ges. exper. Med.*, 1930, 70, 213-219.—(*Biol. Abst.* V: 7468).

3049. Beck, E. Die Myeloarchitektonik der dorsalen Schläfenlappenrinde beim Menschen. (The architectonics of the myelinated tracts of the cortex of the dorsal portion of the temporal lobe in man.) *J. f. Psychol. u. Neur.*, 1930, 41, 129-262 + 37 plates.—A further contribution to our knowledge of localization and the delimitation of fields in the fissure of Sylvius.—H. Marshall (Stanford).

3050. Blohmke, A. Ueber den durch elektrische Reizung des Hirnstammes auslösbaren Nystagmus beim Kaninchen. I. Bestimmung des Auslösungs-zentrums. (The nystagmus produced by electrical stimulation of the brain stem in the rabbit. I. Determination of the center.) *Zsch. f. Hals-, Nasen- u. Ohrenheilk.*, 1929, 23, 213-241.—(*Biol. Abst.* V: 7442).

3051. Filimonoff, I. N. Ueber die Variabilität der Grosshirnrindenstruktur. I. Allgemeine Betrachtungen. (Variability in structure in the cerebral cortex. I. General considerations.) *J. f. Psychol. u. Neur.*, 1931, 42, 210-230.—As previously reported, the Institute for Brain Study in Moscow is carrying on a series of studies of the brains of well-known men of various races and professions, in an attempt to clear up some of the so-called silent areas of the cortex. To date it has been possible to localize only certain elementary functions. The more intricate functions, especially those involving recall and recognition, must depend upon the interrelation of various tracts, or even upon the functioning of the entire cortex. In such complex functioning, however, one tract must dominate, and the others be of secondary importance. It is the determination of the correlation between complex function and complex structure which is the purpose of this and subsequent studies. The investigation is faced by many difficulties arising from the fact that brains



differ as a result of age, race, pathological changes, time elapsed between death and autopsy, etc., and also by the difficulty of measuring accurately the extent of known fields. The author hopes that by the use of architectonics, combined with the study of macroscopic relationships, he may be able to establish certain new and useful facts.—H. Marshall (Stanford).

3052. Herrin, R. C., & Meek, W. J. Influence of the sympathetics on muscle glycogen. *Amer. J. Physiol.*, 1931, 97, 57-65.—The authors conclude from their own and other investigators' experiments that stimulation of the sympathetic nervous system is followed by an increase of glycogen in the muscles. Unilateral removal of the lumbar sympathetic chain results in a lower glycogen content of the muscles on the operated side, or in a greater fatiguability. Hyperthyroidism magnifies the reduction of glycogen following the unilateral sympathectomy. As the increased blood flow to a limb does not of itself seem to cause any decrease in muscle glycogen, it is concluded that the decrease is due only to an interruption of the glycogenic influence of the sympathetics.—Z. Piotrowski (N. Y. Psychiat. Institute).

3053. Jacobsen, E. Electrical measurements of neuromuscular states during mental activities. VII. Imagination, recollection, and abstract thinking involving the speech musculature. *Amer. J. Physiol.*, 1931, 97, 200-209.—Experiments with five subjects upon whom electrical tests were successfully made confirm the view that specific muscles contract during each mental process. One electrode was inserted in the tip of the tongue, the other under the mucosa in the cheek. The minute contractions in the musculature of speech can be satisfactorily examined if the subject has been trained to relax and if the apparatus is sufficiently sensitive and not affected by disturbances irrelevant to the problem. The latter condition is difficult to secure. On the assumption that action-potentials in electrodes connected in muscle tissue signify the occurrence of contraction of fibers it may be concluded that concrete or abstract thinking is an inner speech.—Z. Piotrowski (N. Y. Psychiat. Institute).

3054. Kiss, F., & Von Mihálik, P. Über die Zusammensetzung der peripherischen Nerven und den Zusammenhang zwischen Morphologie und Funktion der peripherischen Nervenfasern. (Composition of peripheral nerves and relationship between morphology and function of peripheral nerve fibers.) *Zsch. f. d. ges. Anat., Abt. I. Zsch. f. Anat. u. Entwicklungsgesch.*, 1928, 88, 112-151.—(*Biol. Abst. V: 9116*).

3055. Kiss, F., & Von Mihálik, P. Über die Markverteilung im peripherischen Nervensystem. (The development of the myelin in the peripheral nervous system.) *Anat. Anz.*, 1930, 69, 433-444.—(*Biol. Abst. V: 9236*).

3056. Lickley, J. D. The nervous system. (Rev. ed.) New York: Longmans Green, 1931.—(Not seen).

3057. Rashevsky, N. On the theory of nervous conduction. *J. Gen. Physiol.*, 1931, 14, 517-528.—Assuming that the propagation of the nervous impulse consists in the excitation of adjacent regions of the nerve by the action current of the already excited region, equations for the velocity of such a propagation are established and integrated. The results depend on the assumptions made about the laws of excitation. If Hoorweg's laws are accepted the description is different from that based upon an acceptance of Lapicque's laws.—C. H. Graham (Temple).

3058. Rizzolo, A. Clonus and generalized epileptiform convulsions caused by local applications of strophanthin, theine and nicotine on the cephalic end of the central nervous system. *Arch. di farmac. sper.*, 1929, 50, 16-30.—(*Biol. Abst. V: 7557*).

3059. Rizzolo, A. Motor points located in the posterior central convolution of the dog's cerebral cortex have each a characteristic excitability. *Arch. di farmac. sper.*, 1929, 50, No. 18.—Z. Piotrowski (N. Y. Psychiat. Inst.).

3060. Rizzolo, A. The localization of motor points in the cerebral cortex of the guinea pig. *Arch. di fisiol.*, 1930, 29, 31-47.—In each motor region a number of points can be located which when electrically stimulated will elicit the same isolated muscular movement. These points differ with respect to excitability. The motor point having the quickest or the greatest excitability was designated as the optimum motor point. Optimum motor points determining different isolated muscular movements were located and their relationship described.—Z. Piotrowski (N. Y. Psychiat. Inst.).

3061. Rizzolo, A. Electrical stimulation of a lateral lobe of the cerebellum in relation to the excitability of the cerebral cortex. *Arch. di fisiol.*, 1930, 29, 219-233.—In all cases (eight adult dogs) electrical stimulation of a lateral lobe of the cerebellum, before division of the corpus callosum, caused an increase in the excitability of both sides of the cerebral cortex, but the increase was always more marked on the side of the cortex contralateral to the cerebellar lobe which had been electrically treated. This seems to indicate that each lateral lobe of the cerebellum is connected only with one side of the cerebral cortex, that is, the contralateral side.—Z. Piotrowski (N. Y. Psychiat. Inst.).

3062. Rizzolo, A. Equilibrium and the excitability of the spinal cord in the smooth dogfish (*Galeus canis* Mitchell) after severance of the cord from the higher nervous levels. *Pubb. d. Staz. Zool. di Napoli*, 1930, 10, 345-364.—"The fact that the excitability of the spinal cord remains unaffected for a period of at least six hours after its transection is proof that in *Galeus canis* the higher nervous levels (the brain) exert no apparent inhibiting nor facilitating influence on the lower nervous levels (the spinal cord)."—Z. Piotrowski (N. Y. Psychiat. Inst.).

3063. Sarkissow, S. A. Zur Frage nach dem Einfluss der Fixierung auf das Zellbild der Grosshirn-

rinde. (The influence of methods of fixation on the cell-picture in the cerebral cortex.) *J. f. Psychol. u. Neurol.*, 1930, 41, 265-272 + 8 plates.—The length of time that the brain remains in the skull after death has a great effect on the differences in the cell-structure of the cerebral cortex. These differences correspond perfectly with the differences which certain authors have noted in the cell picture of the cortices of domestic and wild animals.—*H. Marshall* (Stanford).

3064. Van Campenhout, E. Contribution to the problem of the development of the sympathetic nervous system. *J. Exper. Zool.*, 1930, 56, 295-320.—(*Biol. Abst.* V: 9276).

3065. Well, H. Die Chronaxie der cerebral-atrophischen Muskeln. Ein Beitrag zur Deutung der Entartungsreaktion. (Chronaxy of muscle in cerebral atrophy. Interpretation of the degeneration reaction.) *Dtsch. Zsch. f. Nervenhh.*, 1930, 112, 177-191.—(*Biol. Abst.* V: 7914).

[See also abstract 3040.]

#### MOTOR PHENOMENA AND ACTION

3066. Bárány, R. Erklärung der Befunde M. H. Fischers mit doppelseitiger Spülung. (Interpretation of the results of M. H. Fischer with bilateral irrigation.) *Zsch. f. Hals-, Nasen- u. Ohrenhh.*, 1928, 20, 369-373.—(*Biol. Abst.* V: 7439).

3067. De Juan, P. Sur les réflexes oculaires provoqués par l'aspiration et la compression pneumatiques du contenu des canaux semi-circulaires et de l'utricule chez le lapin. (Ocular reflexes produced by aspiration and compression of the contents of the semicircular canals and utricle in the rabbit.) *Arch. int. laryngol., oto-rhinol.*, 1929, 8, 428-441.—(*Biol. Abst.* V: 7451).

3068. Fenn, W. O., Brody, H., & Petrilli, A. The tension developed by human muscles at different velocities of shortening. *Amer. J. Physiol.*, 1931, 97, 1-14.—"Accurate graphical records have been taken of the swinging of the arm from the shoulder and of the leg from the knee. . . . The tension decreases as the speed of movement increases. The average rate of decrease of tension is 3.1 per cent for a rate of shortening of 10 per cent of the muscle length per second. It is concluded that this represents a maximum figure for the effect of viscosity alone. A similar constant calculated from the data of Hill gives the larger value of 7.3 per cent, probably because reflex inhibition contributed to the decrease of tension."—*Z. Piotrowski* (N. Y. Psychiat. Institute).

3069. Kahn, A. Willkürbewegung und mechanische Bedingung. I. Heben von Gewichten. (Voluntary motion and mechanical conditions. I. Lifting of weights.) *Dtsch. Zsch. f. Nervenhh.*, 1930, 113, 161-178.—(*Biol. Abst.* V: 7781).

3070. Kanetsuki, J. Blood-types and racial psychology. *Seiri-gaku Kenkyu*, 1929, 6, No. 9.—The

author refutes a theory proposed by Furukawa that men of blood-types I and III are progressive, positive, and aggressive, while those of types II and IV are conservative, negative, and passive, and that the national index defined as  $I\% + III\%$  divided by  $II\% + IV\%$  differentiates a group mind for nations, on the ground that political units should not be gauged by biological units, a national boundary often overriding a racial boundary. A distribution of blood-types in a particular race, however, is sufficiently characteristic of the race, and therefore may be of value in defining a racial mind.—*J. G. Yoshioka* (Yale).

3071. Keeler, C. E. A histological basis to explain constant differences in action-current response from certain points on the retina of the horned toad, *Phrynosoma cornutum*. *J. Morph. & Physiol.*, 1930, 50, 193-208.—(*Biol. Abst.* V: 7453).

3072. Kelemen, G. Spontane Labyrinthreizerscheinungen an einigen Säugetieren. (Spontaneous vestibular phenomena in certain mammals.) *Cong. int. Xe. Zool. & Budapest*, 1927, 1929, Part I, 710-712.—(*Biol. Abst.* V: 7456).

3073. Kornmüller, A. E. Eine experimentelle Anästhesie der äusseren Augenmuskeln am Menschen und ihre Auswirkungen. (Experimental anesthesia of the external eye-muscles in man, and its effect.) *J. f. Psychol. u. Neur.*, 1930, 41, 354-366.—Injection of novocain and adrenalin in the muscles of the right eye resulted in a clinical picture as though all the muscles of the eye were almost completely paralyzed. Temporary alteration of the status of the external eye, including motility, was recorded. Only immediately after the interference was there a sensation of pressing forward of the left shoulder. Head and body motion with the left eye covered resulted in marked sensation of apparent motion of objects in the field of vision in the opposite direction; this sensation was increased because of lack of compensatory eye-movements. In purposeful looking marked changes in ego-centric visual localization were observed. For registering these a direct-visual method was employed, which avoided the sources of error possible in the method of Graefe. In the revolving chair, a rod moving in the same direction had no change in localization; nor did the visual after-image. Under a revolving wheel, the sensation of self-motion was weaker, but the egocentric visual consciousness of the motion of the revolving spokes was stronger than under normal conditions. Looking with an immobile right eye at the spokes of a revolving wheel produced a typical optokinetic nystagmus in the uncovered left eye.—*H. Marshall* (Stanford).

3074. Menzel, K. H. Experimentelle Untersuchungen über die Funktion der menschlichen Kehlkopfmuskeln. (The function of the laryngeal muscles in man.) *Zsch. Hals-, Nasen- u. Ohrenhh.*, 1930, 25, 555-568.—(*Biol. Abst.* V: 7457).

3075. Posnanskaja, I. B., & Edmoff, W. W. Der Einfluss der geistigen Ermüdung auf die bedingt reflektorische Tätigkeit des Menschen. (The in-



fluence of mental fatigue on conditioned reflex human activity.) *Arbeitsphysiol.*, 1930, 17, 456-467.—(Soc. Sci. Abst. III: 7851).

3076. Roche, W. J. An investigation of miners' nystagmus. *Brit. J. Ophthalmol.*, 1931, 15, 211-244.—A report of the clinical examination of 212 cases of miners' nystagmus, with discussion of its incidence and causes, and recommendations for its prevention by proper ventilation and lighting. The myophoriograph, an instrument for recording graphically the coordination of the two eyes, is described.—H. Peak (Yale).

3077. Rosolino, — Studio del riflesso contralaterale degli adduttori in soggetti normali e sotto l'azione della stricnina. (The contralateral reflex of the adductors in normal subjects and under the action of strychnine.) *Minerva med.*, 1930, 1, 214-219.—(Biol. Abst. V: 7560).

3078. Selling, L. S. An experimental investigation of the phenomena of postural persistence. *Arch. of Psychol.*, 1930, No. 118. Pp. 52.—The aim of the study was (1) to determine the effect of different intervals of exposure time on the phenomenon, (2) to compare the amount of deviation in the two sexes, (3) to compare the amount of deviation in the left and right arms in both the upward and downward movement, and (4) to determine the influence of age upon the phenomenon. Two groups of children from 4 to 8, two groups from 10 to 14, two groups of adults from 18 to 23, and two groups over 45 were used. In each case one group were females, one males. There were 6,944 measurements made on 124 individuals. The persistence of posture begins to act quickly. The phenomenon of postural persistence appears even when the exposure is no longer than that required for the mere movement of the arm downward, or upward, followed by an attempt to return it immediately to the horizontal. The phenomenon shows a definite increase with increase in exposure time until a maximum is reached between 10 and 35 seconds, maximum about 20 seconds. The amount of deviation differs somewhat from quadrant to quadrant, being highest in most cases in the left lower quadrant in right-handed persons. No sex differences were significant. The phenomenon decreases with age. A bibliography of 17 items is given. The appendix contains 32 tables and 16 charts.—E. M. Achilles (Columbia).

3079. Sexauer, H. Willkürbewegung und mechanische Bedingung. II. Mechanische Störungen im Bewegungsablauf. (Voluntary motion and mechanical conditions. II. Mechanical disturbances during motion.) *Dtsch. Zsch. f. Nervenheilk.*, 1930, 113, 179-191.—(Biol. Abst. V: 7889).

3080. Sierra, A. M. Instintos nutritivos. (Nutritive instincts.) *Rev. de filos.*, 1929, 15, 347-360.—(Soc. Sci. Abst. III: 8142).

3081. Stephens, J. M. Some weaknesses in the explanation of habit fixation as conditioning. *Psychol. Rev.*, 1931, 38, 137-152.—The author discusses various interpretations of the conditioned reflex phenomenon. He compares the relative value of the ex-

planation of learning in terms of the conditioned reflex as compared with an alternate explanation in terms of the "law of effect" or the "principle of the retroflex." The drainage hypothesis is called into question because it is inconsistent with the actual conditions which require a delay between presentation of unconditioned and conditioned stimulus. These conditions fit more readily into a trial and error schema. The retroflex principle (which is like Troland's) assumes that surviving organisms must have been able to select survival-favoring bonds. The result is a machine (the organism) which modifies its own responses to achieve a given end. This is taken care of by the retroflex. The hypothesis is held to cover any case of learning. It excludes the law of frequency as a causal agency.—A. G. Bills (Chicago).

3082. Twitmyer, E. M. Visual guidance in motor learning. *Amer. J. Psychol.*, 1931, 43, 165-187.—The object of the present study was to determine whether different types of learning exist, i.e., with and without "insight." The supplementary visual guidance in this case was permitting the S's to see others learning the pencil maze used, without knowing that subsequently they would also have to learn it. 300 undergraduates served as S's. The maze used was the Young Slot Maze A, modified so that it could be used with a pencil; records were kept by placing a sheet of paper under the maze. The alleys were 5 mm. wide, and the pencil could consequently not touch both sides simultaneously. The results indicate that the visual guidance Group II obtained from watching Group I perform was highly effective in increasing the initial accuracy of the performance. At the end of 10 trials, performed under the same conditions as Group I had used, Group II showed an efficiency which was 10.6 trials better than Group I at the end of 15 trials. The variability of Group II was considerably lower than that of Group I. From a comparison of the actual time spent in observing or practicing on the maze, however, there is evidence that the attainment of a higher degree of efficiency may be reached in less time by actual practice than that to be effected by guidance. Little interference was involved in shifting to use of the left hand or in revolving the maze 180°. The author feels that the learning processes underlying both the methods used are essentially of the same kind.—D. E. Johansson (Rochester).

3083. Wilson, M. O., & Dolan, L. B. Handedness and ability. *Amer. J. Psychol.*, 1931, 43, 261-268.—2328 junior high school pupils were surveyed, and 4.62% of the boys and 2.62% of the girls were found to be left-handed. When the number of cases of changed handedness was included, these percentages were raised to 9.85 for the boys and 6.76 for the girls. A slight but consistent superiority of the dextrals in intelligence, achievement, and teachers' ratings was found. The sinistral girls are slightly superior to the sinistral boys.—D. E. Johansson (Rochester).

[See also abstracts 3016, 3017, 3039, 3084, 3085.]

## PLANT AND ANIMAL BEHAVIOR

3084. Benjamin, C. E., & Huizinga, E. Untersuchungen über die Funktion des Vestibularapparates bei der Taube. II. Mitteilung. Über quantitative Messungen des Tonus und der Kraft in den Muskeln der Extremitäten und des Halses und über die Anlöseungsstelle des Labyrinthonus. (Investigations of the function of the vestibular apparatus of the dove. II. Quantitative measurements of tonus and strength in the muscles of the extremities and the neck, and the conditions of disappearance of the labyrinth tonus.) *Pflüg. Arch. f. d. ges. Physiol.*, 1928, 220, 565-582.—(*Biol. Abst.* V: 7440).
3085. Benjamin, C. E., & Huizinga, E. Untersuchungen über die Funktion des Vestibularapparates bei der Taube. III. Mitteilung. (Investigations of the function of the vestibular apparatus of the dove. III.) *Pflüg. Arch. f. d. ges. Physiol.*, 1939, 221, 104-118.—(*Biol. Abst.* V: 7441).
3086. Bull, H. O. On the nature of purposive movement in fishes. *Dove Marine Lab., Cullercoats, Northumberland, Rep.*, 1929, 39-46.—(*Biol. Abst.* V: 9928).
3087. Bull, H. O. Studies on conditioned responses in fishes, Part II. *J. Marine Biol. Ass.*, 1930, 16, 615-637.—(*Biol. Abst.* V: 9929).
3088. Camboué, —. Note sur le "comportement" de l'araignée sociale communiste de Madagascar (*Stegodyphus gregarius*, var. *simplicifrons*). (Behavior of the social communist spider of Madagascar.) *Bull. acad. Malgache*, 1927, 10, 29-31.—(*Biol. Abst.* V: 9630).
3089. Fields, P. E. Contributions to visual figure discrimination in the white rat. Part I. *J. Comp. Psychol.*, 1931, 11, 327-348.—After listing certain criticisms of the author's previous studies in this field, an apparatus and method designed to control them are presented. Six new problems are outlined which depend for their solution on the rat's ability to establish first the visual figure discrimination. 25 white rats were used, but only the results from the first 10 are reported in this paper. The experiments attempted with this group of 10 rats were: (1) to establish a discrimination between two 8 cm. equilateral triangles whose lowest parts are equidistant from the floor, and which differed from each other only in the positions of their apices; (2) to investigate the reaction when the size of the triangles is gradually diminished (8, 7, 6, 5, 4, 3, and 2 cm.); (3) to investigate the rat's ability to discriminate the 2 cm. triangles from in front of a 27 cm. partition; (4) to determine the reactions to combinations of figures differing in shape, and also to varying sizes in the same shape; (5) to check the influence of different series orders on the discrimination of the 2 cm. triangles.—P. E. Fields (Ohio State).
3090. Fields, P. E. Contributions to visual figure discrimination in the white rat. Part II. *J. Comp. Psychol.*, 1931, 11, 349-366.—The same apparatus and methods described previously (*J. Comp. Psychol.*, 1931, 11, 327-348) were used in the continuation of this study. The experiments performed with a new group of 15 white rats were: (1) to establish a discrimination between two 7.5 cm. equilateral triangles whose centers are equidistant from the floor and which differed only with respect to the position of their apices; (2) to investigate the reaction obtained when one of the triangles is gradually rotated through 60 degrees; (3) to investigate the rat's ability to discriminate the 7.5 cm. triangles from varying distances; (4) to observe the reaction when triangles with lowest parts equidistant from the floor are substituted for triangles with centers equidistant; (5) to investigate the discrimination when only one figure is lighted; (6) to check the influence of various series orders on the discrimination of the 7.5 cm. triangles. After controlling previous criticisms, positive visual figure discrimination was obtained. In addition: (1) The most efficient size of triangles was 6-8 cm.; the 2 cm. triangles were too small to be discriminated, with the upper limit undetermined. (2) Positive results were secured after a rotation of 30 degrees, but only 5 of 15 rats were positive on the 40 degree rotation problem. (3) The usual discrimination distance was 9-6 cm. (4) Rats may react to only one element of the total visual pattern and this can be either positive or negative in character. (5) Neurotic behavior appears with the breakdown of the discrimination regardless of the amount of food and the kind of treatment the rats had received.—P. E. Fields (Ohio State).
3091. Hamill, R. Sequence of turns versus distance as essential pattern-elements in the maze problem. *J. Comp. Psychol.*, 1931, 11, 367-382.—White rats were run in multiple-T mazes which were physically incommensurate in respect to turn-sequence or distance between turns or both. By the transfer type of procedure in two experimental series it was observed that positive transfer was a function of identity of turn-sequence and that negative transfer was occasioned by inverse-sequence regardless of whether the distance between turns was the same or increased or shortened. For the conditions maintained in these experiments it is concluded that turn-sequence is comparatively more important than distance between turns as an essential pattern-element for the maze problem. Theoretical considerations are indicated.—R. Hamill (North Carolina).
3092. Keeler, C. E. The question of visual capacity in mice bearing rodless retinae. *Zsch. f. wiss. Biol. Abt. C., Zsch. f. vergl. Physiol.*, 1928, 7, 736-738.—(*Biol. Abst.* V: 7454).
3093. Koller, G. Versuche über den Farbensinn der Eupaguriden. (Color sense of pagurids.) *Zsch. f. wiss. Biol. Abt. C., Zsch. f. vergl. Physiol.*, 1928, 8, 337-353.—(*Biol. Abst.* V: 9588).
3094. Lord, E. M., & Gates, W. H. Shaker, a new mutation of the house mouse (*Mus musculus*). *Amer. Nat.*, 1929, 63, 435-442.—(*Biol. Abst.* V: 7115).
3095. MacGillivray, M. E., & Stone, C. P. The incentive value of food versus food and escape from



water for albino rats forming the light discrimination habit. *J. Comp. Psychol.*, 1931, 11, 319-324.—The incentive value of food versus food plus escape from water are compared in this experiment, wherein rats are required to form a fairly complex discrimination habit. The addition of escape from water to the food reward made no appreciable difference in learning rates of the animals tested.—C. P. Stone (Stanford).

3096. Pincus, G. On the temperature characteristics for frequency of breathing movements in inbred strains of mice and in their hybrid offspring. *J. Gen. Physiol.*, 1931, 14, 421-443.—Young mice of a selected line of dilute brown strain of mice exhibit over the range 15-25° C. a relation of frequency of breathing movements to temperature such that when fitted by the Arrhenius equation the data give a value for the constant  $\mu$  of 24,000 calories, or less frequently, 28,000. Young mice of an inbred albino strain show over the temperature range 15-20° C. a value of  $\mu$  equal to 34,000, or less frequently, 14,000, with a critical temperature at 20° and a value of  $\mu$  equal to 14,000 above 20° C. The F<sub>1</sub> hybrids of these two strains, and the back-cross generations to either parent strain, exhibit only those four values observed in the parent strains. One may speak of the inheritance of the value of the constant  $\mu$ , but the inheritance shows in this instance no Mendelian behavior. Furthermore, there appears to be inherited the occurrence of a critical temperature at 20° C. These experiments indicate the "biological reality" of the temperature characteristics.—C. H. Graham (Temple).

3097. Rizzolo, A. A study of equilibrium in the smooth dogfish, *Caleus canis* (Mitchell). *Biol. Bull.*, 1929, 56, 383-389.—In all animals, bilateral destruction of the labyrinth causes disturbances of equilibrium such as rotation around the axis, spirals and nose diving. The animals regain most of their equilibrium within twenty-four hours. They remain normal after sectioning of the olfactory tracts or optic nerves.—Z. Piotrowski (N. Y. Psychiat. Inst.).

3098. Seeman, E. The working hours of ants. *Psyche*, 1928, 35, 114-118.—(*Biol. Abst.* V: 9782). [See also abstracts 2994, 3024, 3050, 3059, 3060, 3061, 3062, 3067, 3071, 3102.]

#### EVOLUTION AND HEREDITY

3099. Allen, B. Inheritance of scientific bent. *Eug. News*, 1931, 16, 43.—A pedigree is presented in which 17 out of 46 blood-relatives are described as having scientific interests.—R. K. White (Stanford).

3100. East, E. M. The inheritance of mental characteristics. *Ment. Hygiene*, 1931, 15, 45-51.—The author discusses the inheritance of mental characteristics, especially with respect to the pragmatic use of the artificial term unit character. Writers on genetics have stated that normal mentality and feeble-mindedness are a pair of contrasting unit

characters inherited as if the difference between them were due to a single gene. The physical basis of the phenomenon we call mind has a complex and variable gene pattern. Theoretically it would be possible for any one of these genes to mutate to a type that would produce a breakdown in the mental machinery. And the defective mentality could exist in numerous grades due to the action of the other genes. There is no valid evidence, however, to suggest the existence of more than one defective gene.—E. M. Ligon (Union).

3101. Gould, H. N., & Davis, B. Size of family. *J. Hered.*, 1930, 21, 489-494.—Data on size of families were collected by personal interviews with 250 women students of Newcomb College in attendance in 1926 to 1928. The average number of children born in the parental generation was 5.37. The sex ratio for this generation was 109.6 males to 100 females; the average number of persons who survived to adult life (age 21 or over) was 4.73. Considering females in sibships of fathers and males in sibships of mothers, to avoid effects of selection, 16.87% of the number who reached age 21 have not married. The 250 families of which the students are members average 3.16 children born; families of siblings of students' parents average 2.24 children born. If the figures could be taken at their face value, the drop in fecundity from the parental generation to that of the students' families would be 41%. The authors point out, however, that selection augments the size of the families considered beyond the average for the strata represented. But if selection is allowed for, it is still clear that the filial generation is not holding its own.—B. S. Burks (Stanford).

3102. Hanson, F. B., & Cooper, Z. The effects of ten generations of alcoholic ancestry upon learning ability in the albino rat. *J. Exper. Zool.*, 1930, 56, 369-392.—(*Biol. Abst.* V: 7506).

3103. Kahn, R. Inheritance of ability in drawing. *Eug. News*, 1931, 16, 42.—A pedigree is presented in which 13 out of 28 blood-relatives are described as possessing drawing ability. Five are architects.—R. K. White (Stanford).

3104. Kretschmer, E. The breeding of the mental endowments of genius. *Eugenics*, 1931, 4, 6-11.—(*Soc. Sci. Abst.* III: 8199).

3105. Robinson, C. H. Recent statistics on differential birth rates. *Eugenics*, 1930, 3, 413-418.—(*Soc. Sci. Abst.* III: 8201).

3106. Rossman, J. Heredity and invention. *J. Hered.*, 1930, 21, 507-512.—A questionnaire submitted to more than 700 of the most active inventors in the United States showed the following distribution of occupations of fathers: professional, one third; commercial, 35.5%; skilled labor, 16.2%; farmers, 15%. Nearly 40% of the inventors had relatives who were inventors. Of inventors having adult children, 66.4% indicated that their children showed some evidence of inventiveness. Inventors who had inventive relatives were more likely to have

inventive children than were inventors without inventive relatives.—*B. S. Burks* (Pasadena).

3107. Sellman, P. The inheritance of stammering. *Eug. News*, 1931, 16, 43.—A pedigree is presented in which 5 out of 29 blood-relatives are described as stammerers.—*R. K. White* (Stanford).

3108. Willoughby, R. R. The small families of large-family advocates. *J. Soc. Psychol.*, 1930, 1, 318-319.—The mean number of children reported per eugenicist for 118 persons officially sponsoring the eugenics program is 2.05, which by reason of mortality falls below the maintenance level. This figure may be compared with 2.8, the corresponding value for all individuals listed in *Who's Who*. The whole relation between psychology and genetics badly needs careful examination.—*R. C. Travis* (Western Reserve).

[See also abstracts 3094, 3133, 3237.]

#### SPECIAL MENTAL CONDITIONS

3109. Besterman, T. Library catalogue (supplement 1929-1930). *Proc. Soc. Psych. Res. (E.)*, 1931 (misprinted 1930), 40, 3-58.—*W. S. Taylor* (Smith).

3110. Bogardus, E. S. Personality and character. *Sociol. & Soc. Res.*, 1930, 15, 175-179.—(*Soc. Sci. Abst.* III: 8154).

3111. Carrington, H. The story of psychic science. New York: Ives Washburn, 1931. Pp. 400. \$5.00.—A summary of "supernormal" phenomena. A "supernormal" phenomenon is defined as one which is unusual or extraordinary, one which cannot be explained in the terms or concepts which "normal" science uses. "Supernormal" phenomena are divided into two categories: mental and physical. Mental phenomena include automatic writing, automatic speaking, crystal gazing, psychometry, telepathy, clairvoyance, clairaudience, premonitions and apparitions. Physical phenomena include telekinesis, raps, psychic lights, poltergeists, independent writing, independent voices, levitation, dowsing, psychic photographs and materialization. Although the mechanics of certain of the mental phenomena may be explained by abnormal psychology, the information which the automatic writer, the automatic speaker, the crystal gazer, etc., imparts, constitutes the "supernormality" of these phenomena. In spite of the fact that many alleged psychic phenomena have been shown to be fraudulent (most of them by members of psychic research societies), there still remains a large body of "supernormal" events which have occurred under conditions which rendered trickery, unconscious or conscious, impossible. Numerous examples of each class of phenomenon are given, with evidence for their authenticity. Although psychic scientists have not reached agreement as the explanations of these facts, their existence has been proved. The author advocates the investigation of these phenomena in the labora-

tory, where explanatory theories may be tested. "Normal" science is criticized for its dogmatic denial of facts which its mechanistic principles will not explain. A classified bibliography of several hundred references is appended.—*B. Casper* (Clark).

3112. Coutts, W. S. La ansiedad contemporánea. (Contemporary anxiety.) *Rev. de crim. psiquiat. y med. leg.*, 1930, 17, 392-400.—(*Soc. Sci. Abst.* III: 8303).

3113. Gutheil, E. Ein geheilter Fall von Stottern. (A cured case of stuttering.) *Zentbl. f. Psychotherap.*, 1931, 4, 171-187.—A complete analysis of a case of stuttering in a thirty-year-old orthodox Jew traces its origin to (1) a general condition of inhibition, (2) a consciousness of guilt which makes the patient in the presence of his fellow men assume the relation of defendant to judge, (3) an acknowledged homosexual love for his father, (4) a repressed warning to his father against his mother. In the course of one year, during which 80 sessions were held, a cure was effected.—*M. Lee* (Chicago).

3114. Hart, H. Family life and the fulfillment of personality. *Amer. J. Psychiat.*, 1930, 10, 7-17.—"Fulfillment of personality requires that the deepest and fullest possibilities of the child shall be (1) stimulated; (2) released; (3) facilitated; and (4) integrated." Causes of failure of sex life, from a study of concrete instances, are stated to fall into five groups: (1) physical disaster; (2) moral conflict; (3) conflict between desires for variety and for security; (4) loss of integrity; (5) destructive consequences of unintegrated impulses. A set of principles is offered toward a solution that "will make possible rich and splendid life for the thinking men and women who are building the mores of the future, and for the sufferers who have been crushed in the clash between cultures or deep-seated needs."—*S. J. Beck* (Boston Psychopathic Hospital).

3115. Hoffman, K. Anzeichen und Feststellung von Alkoholeinfluss bei Verkehrsunfällen. (The influence of liquor in traffic accidents; its symptoms and determination.) *Alkoholfrage*, 1930, 26, 73-80.—(*Soc. Sci. Abst.* III: 7969).

3116. Jephson, I., Soal, S. G., & Besterman, T. Report of a series of experiments in clairvoyance conducted at a distance under approximately fraud-proof conditions. *Proc. Soc. Psych. Res. (E.)*, 1931, 39, 375-414.—The report includes a description of the technique employed, a statistical analysis, and a theoretical analysis, with suggestions for further research. "We can, and need only say, that under the given conditions, the experiment was negative."—*W. S. Taylor* (Smith).

3117. Leuz, I. Hermann Sudermann (1857-1928). Eine individual-analytische und schaffens-psychologische Studie. (Hermann Sudermann; an individual analysis and study of his creative psychology.) *J. f. Psychol. u. Neur.*, 1931, 42, 231-413.—It was the wish of Sudermann that after his death an



objective investigation of his intellectual ability, in particular of his poetic endowment, should be made. For this purpose he directed that his brain be given to Dr. Oscar Vogt, a friend of long-standing. This study is intended to furnish a psychological analysis of the poet to parallel the anatomical study of Dr. Vogt.—H. Marshall (Stanford).

3118. Marlenfeld, —. Landjäger und Hellseher. (Rural police and clairvoyants.) *Krim. Monatsh.*, 1931, 5, 36-38.—An instance of the utter failure on the part of a "clairvoyant" to locate a lost saddle horse, which was found dead, some time after its disappearance, by a member of the rural police.—P. C. Squires (Clinton, N. Y.).

3119. McCormack, T. J. *Personality: a study in the history of verbal meanings.* *Ment. Hygiene*, 1931, 15, 34-44.—A study in the history of verbal meanings. Few words in the course of their history have had more meanings or have more frequently changed their meanings than have the words *person* and *personality*. The article includes a study of the etymology and history of the word *persona*, the concept of theology and philosophy, and the romantic concept. There are fourteen references.—E. M. Ligon (Union).

3120. Mitra, S. C. *Psychology and psychoanalysis.* *Indian J. Psychol.*, 1930, 5, 161-169.—Refers to the conflicting viewpoints in modern psychology; denies the right to use the term "psychology" to those schools that tend to omit consciousness from psychological consideration; affirms that while the psychoanalysts were not the pioneers in discovering the unconscious, they were the first to delve into its mysteries; and laments the short shrift which the orthodox psychologists give to the psychoanalysts. If the goal of psychology is to be the fullest possible explanation of mental life, then psychologists will have to make use of the findings of the psychoanalysts. The method of psychoanalysis deserves to take its place beside the three time-honored psychological methods of observation, experimentation and introspection in the textbooks. Already the contributions of the analysts to psychological knowledge are enormous.—L. A. Averill (Worcester State Normal School).

3121. Pearson, G. H. J. *Some early factors in the formation of personality.* *Amer. J. Orthopsychiat.*, 1931, 1, 284-291.—H. Peak (Yale).

3122. Pierce, F. *Dreams and personality.* New York: Appleton, 1931. Pp. xii + 337. \$3.00.—The author has selected series of dream texts, with associations, comments and summaries, from his collection of over 1000 dreams of 204 individuals in all stations of life. The selected series are from nine pairs of subjects; one pair are sisters, another consists of a society woman and a girl from the submerged tenth, and the others consist of a man and a woman each, somewhat comparable as to background and intelligence. All subjects chosen are of superior ability and richness of mental life; a few are some-

what neurotic. In each case a picture is drawn of the waking personality in some detail in addition to that of the dreaming personality. The associations are also selected in the interests of space and relevance, and no attempt was made to penetrate resistances; interpretations were not offered; there is no information on transference, but a therapeutic effect was visible in some cases. The main objective was to compare the waking with the dreaming personality, and the conclusion is that in the cases of two men and six women they are alike, while in those of five men and five women they are different. The author finds evidence confirming most of the Freudian mechanisms, but believes the material disproves Freud's wish-fulfilment hypothesis. There are two introductory chapters, largely on method, and a summary chapter.—R. R. Willoughby (Clark).

3123. Viener, A. *Budapest alkaloidismusa.* (Drug addiction in Budapest.) *Társad. szociológia*, 1930, 3, 248-274.—(*Soc. Sci. Abst.* III: 8308).

3124. Wells, F. L. *The systematic description of the personality.* Conference on individual differences in the character and rate of psychological development. (Iowa City, Iowa, December 28, 1930.) Washington: National Research Council, 1931. Pp. 52-70.—Something of the history of personality classification is sketched, with a number of quotations from Theophrastus and some from John Earle (1628). The inventory method of getting at traits runs into difficulty in trait definition. Sixteen specific personality tests are listed and briefly characterized. The multiple choice procedure which most of them employ gives responses which can easily be scored; the use of personal options, giving a subject's own solution of problem situations, tells more about his personality. The Rorschach technique (ink-blot) is instructive because it permits the subject to select his stimulus as well as to originate his response. There is danger in taking the attitude that measures resulting from personality tests represent fairly fixed quantities, comparable to the IQ. Personality must be recognized as a developing and maturing conduct system. 44 references.—E. R. Hilgard (Yale).

3125. Wittels, F. *Freud and his time.* (Trans. by L. Brink.) New York: Liveright, 1931. Pp. 451. \$4.00.—Only the first two chapters on Goethe and Freud and Freud the Antiphilosopher, and the last, on Einstein and Freud (i.e., the significance of psychoanalysis in civilization), are concerned with the subject of the title. The intermediate chapters comprise an exposition of the analytic viewpoint, method and findings, together with applications in anthropology, education, law, and art.—R. R. Willoughby (Clark).

3126. Yoshikuni, S. *Medical observations on the aged.* *Okayama Igakukai Zasshi*, 1929, 41, No. 8.—J. G. Yoshioka (Yale).

[See also abstracts 3048, 3058, 3077, 3131, 3138, 3154, 3160, 3162, 3263, 3298.]

## NERVOUS AND MENTAL DISORDERS

3127. Ammoscow, M. M. Zur pathologischen Anatomie der pallidären Formen von Athetose. (Pathological anatomy of the globus pallidus type of athetose.) *J. f. Psychol. u. Neur.*, 1930, 41, 374-382.—In the limited number of cases available for anatomical study, the affection depends upon a congenital weakness of the extra-pyramidal tracts.—H. Marshall (Stanford).

3128. Benjamin, E. Vorbeugung der Neurosen. (Prevention of neurosis.) *Zsch. f. psych. Hygiene*, 1931, 4, 3-10.—Every neurosis is considered as a social neurosis. Out of 250 cases of neurosis studied about a third had their origin in infancy and about 90% had begun by the end of the third or fourth year. The so-called "defiance period" marked the first great social crisis in the life of the psychopathic child. An outline is given for the study and prevention of neurosis.—M. B. Mitchell (Yale).

3129. Bielschowsky, M., & Hallervorden, J. Symmetrische Einschlusskörper im Stirnhirn beim Wilson-pseudosklerosekomplex. (Symmetrical circumscribed areas of softening in the frontal region in Wilson's pseudo-sclerosis.) *J. f. Psychol. u. Neur.*, 1931, 42, 177-209.—H. Marshall (Stanford).

3130. Burritt, B. B. What mental hygiene means to social work. *Ment. Hygiene*, 1931, 15, 72-80.—Social work has a tremendous stake in mental hygiene. The main aim of mental hygiene is almost identical with that of social work. The economic loss and the loss to social well-being from mentally disturbed persons in the community are undoubtedly far greater than the loss due to those who are cared for in institutions. In respect to the resultant behavior problems, the mental-hygiene group has a contribution that the social worker cannot afford to be without.—E. M. Ligon (Union).

3131. Culpin, M. The nervous temperament: its assessment and its clinical aspect. *Brit. J. Med. Psychol.*, 1931, 11, 32-39.—Study of telegraphists' cramp indicated that cramp was only a symptom of, or exorcism upon, a more fundamental psychoneurotic state. In order to determine the prevalence of symptoms similar to those found in people seeking treatment examinations were made of over a thousand control cases of people actually at work. Most of the evidence was secured through direct question and answer. Dotting scores were much higher for individuals showing obsessive symptoms than for those suffering from anxiety. Five cases are given, indicating anxiety and obsessional states not yet causing loss of time from work. The method developed is discussed in relation to clinical medicine.—E. R. Hilgard (Yale).

3132. Dorris, E. D. Problems of recovered psychiatric patients. *Tennessee State Med. Assn. J.*, 1930, 23, 130-132.—(Soc. Sci. Abst. III: 8330).

3133. Dürst, G. L. Studien über schizophrene Einschlüsse in manisch-depressiven Stammbäumen. (Schizophrenic scions in manic-depressive family

trees.) *Zsch. f. d. ges. Neur. u. Psychiat.*, 1930, 124, 426-450.—(Biol. Abst. V: 7105).

3134. Elliot, T. D. Psychiatrische Soziologie und soziologische Psychiatrie. (Psychiatric sociology and sociological psychiatry.) *Kölner Vjsh. f. Soziol.*, 1930, 9, 82-100.—(Soc. Sci. Abst. III: 8317).

3135. Hamburger, C. Om korrelation mellem blodtyper og sindssygdom samt betydningen af blodtypebestemmelser ved podningsmalaria. (Correlation between blood types and mental symptoms, together with the significance of blood type determinations in inoculated malaria.) *Hospitalstidende*, 1929, 72, 1188-1195.—(Biol. Abst. V: 8119).

3136. Harms, M. Institutional care of the criminal insane in the United States. *Ment. Hygiene*, 1931, 15, 135-154.—It is the purpose of this paper to unify the available data concerning the present methods of caring for the criminal insane in the United States, and wherever possible to show the history of the movement for their separate and specialized care. There are 10 institutions for the criminal insane; wards for them at 3 penal institutions; separate buildings in 15 state hospitals; special wards in 8 state hospitals; and they are on wards with other patients at 28 state hospitals.—E. M. Ligon (Union).

3137. Joseph, A. Rheumatoide Erscheinungen und ihre seelische Beeinflussung. (Rheumatoid symptoms and their psychic treatment.) *Zentbl. f. Psychotherap.*, 1931, 4, 146-169.—The term rheumatism includes many symptom complexes, the classification of which in relation to their etiology is a matter of dispute. The importance of such conditions is, however, undeniable, since they constitute 10% of all diagnosed disease and are 4.83 times as prevalent as tuberculosis. Although the attempt to find any constant essential physical change present in such cases has been unsuccessful, it is noticeable that all cases are characterized by psychic and functional disturbances. An attempt was therefore made to treat 100 cases of lumbago and torticollis from this aspect. A suggestion for such treatment was derived from the work of W. Fließ, who has pointed out the close reflex connections between the nasal membranes and head symptoms, organic disturbances and neuralgic pain. The patients were required to come to the office and, after a brief history-taking and examination in which only confidence in cure was suggested, the nasal mucous membrane, especially over the septum, was injected with 5 drops of 10% cocaine solution and so rendered insensitive to smell, touch and pain. 70 cases of lumbago in men were so treated; 60 were immediately relieved of pain and ready to return to work. 15 of 17 women also recovered promptly. Only 2 men of a group of 7 men and 6 women with torticollis were not cured at once. 100 unselected cases of all forms of rheumatic disease were then treated in like manner with 88% complete success. In some cases injection of distilled water was first given and produced no results. It is important to remember that the neurotic patient differs from the one with organic disease only in the genesis



of his illness, not in his need of treatment.—*M. Lee* (Chicago).

3138. Kaldewey, W. *Zur Psychopathologie der Fremdkörperschlucker.* (Psychopathology of those who make a practice of swallowing foreign bodies.) *J. f. Psychol. u. Neur.*, 1930, 41, 309-319.—The author reports six cases of individuals who had deliberately swallowed a variety of articles ranging from pins and broken bits of glass, needles, tacks, nails, bits of tin foil and fragments of metal, to screws, spoon-handles and tooth-brush handles, a knife, a razor-blade, frogs, toadstools, and a 15-cm. piece of iron. In each case the author determined that there was a connection between sexual sensations of lust and the pain of self-torture. He suggests that all such cases show characteristics of homosexuality, which finds its satisfaction in fantasy in connection with self-torture.—*H. Marshall* (Stanford).

3139. Kasanin, J., & Cook, E. C. A study of one hundred cases discharged "against advice" from the Boston Psychopathic Hospital in 1925. *Ment. Hygiene*, 1931, 15, 155-171.—The authors selected 100 patients discharged from the Boston Psychopathic Hospital in 1925 against advice of the hospital authorities. Information was secured on 95 of the 100 five years later. 15 had died and 44 had been committed to state hospitals, of whom 16 were later discharged. 36 cases have been able to remain permanently in the community. Only one-third of the patients diagnosed as schizophrenic were able to adjust, whereas two-thirds of the manic-depressive group made satisfactory adjustment.—*E. M. Ligon* (Union).

3140. Larsen, E. J. A neurologic-etiological study on 1000 mental defectives. *Acta psychiat. et neur.*, 1931, 6, 37-53.—A study of 1000 institutional cases of mental defectives in Denmark gave the following general results: the great endogenous group which largely comprises the milder cases that are discharged, for instance, to be cared for in private families, shows a frequency of hereditary taint about 5 times that encountered in the exogenous group. In the endogenous group there are 173 cases with a history of several mental defectives in the family, mostly staying at home; the exogenous group has only 17 cases of this kind. In the exogenous group, 22.3% of the cases give a history of birth injury; in the endogenous group this is found in only 4.9%. This difference in percentage shows that birth injury plays an important rôle in the development of the organic form of mental deficiency. But the percentage of birth injury in the total material as the cause of mental deficiency is only 8.2. The concept of lethal and sub-lethal hereditary factors is introduced in the research on mental deficiency. It is pointed out that these factors may be taking a part not recognized as hereditary. Hereditary taint was found in 9.2% of the exogenous cases. In addition to these so-called exogenous forms it is now assumed, as a working hypothesis, that Mongolian idiocy, a few

endocrine forms and some instances of endogenous mental deficiency are due to sub-lethal hereditary factors. Bibliography of 17 titles.—*M. L. Reymert* (Mooseheart Laboratory for Child Research).

3141. Negus, S. S. Analyses of the blood of idiots. *Science*, 1931, 73, 449-450.—"Inorganic phosphorus in blood plasma samples from twenty-five idiots has been found to be within the normal limits . . . the ages of the idiots range between eleven and forty-four. Diet was carefully considered. Acid soluble phosphates, lecithin, percentage hemoglobin, red cell count and cell volume have been found to be within the normal limits also. Our results indicate that there is some variation from the normal in the cholesterol content."—*R. E. Wiloughby* (Clark).

3142. Partridge, G. E. Current conceptions of psychopathic personality. *Amer. J. Psychiat.*, 1930, 10, 53-99.—The topic is stated as covering "a great number of mainly unclassified mal-adjustments," and a "group of persons distinguished by anomaly in the social sphere primarily." A survey is presented covering history of the subject, terminology, definitions and description, classification within the group, description of classes, recent and current studies, relations to criminology and to psychiatry generally, and treatment. The author concludes that the "sociopathic" type of psychopathic personality manifests a reaction pattern ranking coordinately with the functional mental disorders generally.—*S. J. Beck* (Boston Psychopathic Hospital).

3143. Penrose, L. S. A case of schizophrenia of long duration. *Brit. J. Med. Psychol.*, 1931, 11, 1-31.—There has been opportunity to observe in detail the whole life of a patient 80 years old whose psychosis has lasted over 50 years without ending in dementia. Systematized delusions are described and illustrated with figures, including an invented calendar, a system of measurements, a new alphabet, systems of astronomy, natural history, geography, theology, the social order. The clinical type corresponds to Kraepelin's paraphrenia expansiva, in which ideas of grandeur are prominent and there is little deterioration to be observed in a decade. An unusual feature is the abundance of neologisms. The case is given a psychoanalytical interpretation.—*E. R. Hilgard* (Yale).

3144. Rademacher, E. S. Clinical psychiatric service on a part-time basis: its advantages and disadvantages. *Ment. Hygiene*, 1931, 15, 81-86.—The ever-spreading mental-hygiene movement has brought about the profession of visiting psychiatrist. This paper is a discussion of the advantages and disadvantages of the employment of such a part-time psychiatrist.—*E. M. Ligon* (Union).

3145. Raitzin, A. Gimnasia, deportes y juegos en la terapéutica psiquiátrica. (Gymnastics, sports, and games in psychotherapy.) *Rev. de crim. psiquiat. y med. leg.*, 1930, 17, 304-317.—(*Soc. Sci. Abst.* III: 8332).

3146. Richards, E. L. *Psychiatry's contribution to human welfare. Rel. Educ.*, 1931, 26, 240-246.—The most obvious results of unemployment are found in the increased number of mental breakdowns as shown by the admissions to psychiatric hospitals. Economic distress bears hardest upon those who have been forced into the struggle of life with grown bodies but with minds only eight or ten years old. A campaign should be initiated for fitting these to become self-dependent. Religion finds an especially welcome function in times like these. Truths, although surviving in outgrown forms, yet find a use in the distressed lives of men and women. Wholesome diversions, personal friendliness, and ventilating discussions will be found of great value in relieving mental tension.—*J. P. Hylan (Stoneham, Mass.)*.

3147. Roemer, H. *Die Frühentlassung der Schizophrenen.* (The early discharge of schizophrenic patients.) *Zsch. f. psych. Hygiene*, 1931, 4, 10-26.—Private statistical investigation of the records of German institutions for the mentally diseased showed that on the whole the schizophrenic patients have been hospitalized for a shorter period since the World War than before. It is believed that early release of the patients to family care is of great psychotherapeutic value. Care within the institution during a crisis should be on a personal basis.—*M. B. Mitchell (Yale)*.

3148. Sioll, —. *Flugblätter zur Aufklärung in der Geisteskrankenfürsorge.* (Pamphlets explaining the care of the insane.) *Zsch. f. psych. Hygiene*, 1931, 4, 1-3.—Some 20 pamphlets have been prepared by the Association for the Assistance of the Mentally Diseased in the Rhine Province and are ready for general distribution upon request.—*M. B. Mitchell (Yale)*.

3149. Strecker, E. A., & Appel, K. E. *Discovering ourselves. A view of the human mind and how it works.* New York: Macmillan, 1931. Pp. xiii + 306. \$3.00.—This book, written in language intelligible to the uninitiated, is intended for self-help to the "nervous" individual in understanding and thereby controlling his condition. Nervousness is not primarily the result of disease of the physical nervous system and therefore cannot be alleviated by physical treatment. The cure lies in psychoanalysis, but the many to whom this is impossible may, by an understanding of the principles underlying mental hygiene, be helped to reach the maximum of mental health, comfort and efficiency. The conditions which may be at the root of nervous disorders are explained; balance of activity, the relation of the conscious, subconscious, and unconscious, the "bad" complexes, particularly the inferiority complex (whose basis may be physical, environmental and mental, or a combination of the two), and conflicts and methods of meeting them. The latter include regression, extroversion, introversion, rationalization, segregation, repression, dissociation, conversion into bodily symptoms, substitution, projection, identification, compensation, and sublimation. Each of these methods involves serious hazards, except sublimation, through

which conflicts may safely be resolved, neuroses avoided, and mental peace achieved. Many diagrams are drawn representing graphically the concepts discussed.—*M. P. Montgomery (Faribault, Minn.)*.

3150. Strecker, E. A., & Ebaugh, F. E. *Practical clinical psychiatry for students and practitioners.* Philadelphia: Blakiston, 1931. (3d ed.) Pp. 553. \$4.00.—The present edition consists of 14 chapters, 553 pages, and 47 illustrations. It is increased by 95 pages and 17 illustrations over the previous edition. A new chapter has also been added on "Practical Aspects of Child Guidance Problems." A great number of diseases which begin as strictly problems of internal medicine soon overflow into the channels of psychiatry, and vice versa. The authors deal with all the difficulties and obstacles encountered. The aim is to bring about the psychiatric viewpoint, which assures the ability not only to treat the physical symptoms but also the whims, peculiarities, personality, mind, in fact, the entire patient. The case method of presentation has been adopted.—*R. R. Willoughby (Clark)*.

3151. Wembridge, E. R. *Life among the low-brows.* Boston: Houghton Mifflin, 1931. Pp. viii + 301. \$2.50.—A popular and somewhat humorous account of some of the types and situations encountered by the author in her work as referee of a juvenile court. Among the problems met are those of the feeble-minded; the neurotic and psychotic; the teaching of the elementary psychology of personality to a group of uneducated but active-minded shop girls; negroes; economics; sex promiscuity; and the general sociological significance of maladjustment.—*R. E. Willoughby (Clark)*.

3152. White, R. K. *Note on the psychopathology of genius. J. Soc. Psychol.*, 1930, 1, 311-315.—Out of 1030 British men of eminence Havelock Ellis found that 44 had been reported as having had some form of insanity. 31 were temporary, doubtful, or occurred only in old age, leaving 13 that were clearly insane for a large part of their lives. Of these 13, 6 were poets, 4 artists, 2 "men of letters," 1 a business man. Of 300 geniuses studied by Cox 13 were insane. 5 were poets, 3 religious leaders, 3 scientists, 1 a philosopher and 1 a soldier. The poets and novelists showed introverted traits. The poets, musicians, and revolutionary statesmen showed a high degree of excitability. The geniuses all seemed to have a high degree of persistence or fanatical self-confidence.—*R. O. Travis (Western Reserve)*.

3153. Zwirner, E. *Psychologisch-phonetische Untersuchungen an Psychosen.* (Psychological and phonetic investigation of psychoses.) *J. f. Psychol. u. Neur.*, 1930, 41, 342-353.—Record, verbal and phonetic, of a conversation between doctor and patient in which the patient's anger is aroused to the point where she is negative and argumentative. The author feels that there is an opportunity for a new attack on the study of mental disease through the medium of phonetics.—*H. Marshall (Stanford)*.

[See also abstracts 2982, 3031, 3112, 3204, 3229, 3255, 3257, 3270.]



## SOCIAL FUNCTIONS OF THE INDIVIDUAL

3154. Alexander, F., & Staub, H. *The criminal, the judge and the public.* (Trans. by G. Zilboorg.) New York: Macmillan, 1931. Pp. xx + 238. \$2.50.—Exposition is made of the psychoanalytic contribution to the social psychology of crime and punishment (principally the former). For purposes of more accurate psychological diagnosis, criminal acts are divided into accidental criminality, including situational crimes and crimes resulting from mistakes, and chronic criminality, including crimes organically based, neurotic crimes (compulsive or symptomatic, acting out of criminal tendencies), "normal" crimes by individuals with criminal super-ego, and the hypothetical "genuine" criminal without inhibitions. The authors profess to offer little on treatment, but briefly suggest that the present retributive system is psychologically sound (if the effect on the criminal be considered more or less independently of that on the public sense of justice) only with the "normal" criminal and the "genuine" criminal, of whom there can be only a few. For the neurotic criminal, who presumably constitutes the bulk of offenders, segregation and attempted psychoanalytic treatment (without much hope of success) are recommended. The effect of any penal measure on the public unconscious must be taken into account, and the instability of the repressions of this organ presents little hope of improvement and much peril.—R. R. Willoughby (Clark).

3155. Allen, D. *Human nature, perennial excuse for war.* *World Unity*, 1930, 7, No. 2.—(Soc. Sci. Abst. III: 8065).

3156. [Anon.] *Studies on vagrants and beggars with children.* *Tokyo Municipal Gov't, Official Bull.*, 1929.—Among 473 vagrants arraigned in the municipal courts in Tokyo, 62 (13.1%) were between 36 and 40 years, 52 (10.9%) between 26 and 30, 51 (10.7%) between 21 and 25, 48 (10.1%) between 51 and 55. It is to be noted that the majority were in their most productive years. 50.95% were healthy, 49.05% had sickness of one kind or another. Among the latter group, 71.55% had internal troubles, 7.76% external injuries, 18.10% disabilities, 2.58% mental abnormalities (mostly men above 51 years). As to the causes of vagrancy, 167 blamed loss of job, cruelty of employers, business failure, and earthquake, the first being most frequent and the rest following in order. The next group of 162 complained of sickness, injury, and mental deterioration—physical and physiological causes as contrasted with the causes of the first group, which are social and environmental in nature. As to former occupations 167 (36.1%) had been day laborers, 41 (8.6%) business men, and only 22 (4.4%) factory hands. In general physical and physiological disabilities seem to have been more conducive to vagrancy than mental impairments, although the latter were by no means negligible. This may explain the fact that the majority of these vagrants were in their most productive years. Beggars accompanied by children were mostly in the age group 36-40 years; the 41-45

year group were next in number. 57.4% were healthy, 42.6% had physical ailments. The same causes as applied to vagrants were operative in this group, but as to the former occupations most of these had had none at any time.—J. G. Yoshioka (Yale).

3157. [Anon.] *Crime and the community—a study of trends in crime prevention by the sub-commission on causes and effects of crime.* Albany: Crime Commission of New York State, 1930. Pp. 289.—(Soc. Sci. Abst. III: 8295).

3158. Bachl, R. *Gli indici dell'attrazione matrimoniale.* (Indexes of matrimonial attraction.) *Gior. d. econ.*, 1929 (Nov.), 894-938.—(Soc. Sci. Abst. III: 8368).

3159. Rose, G. *The psychological outlook in Hindu philosophy.* Presidential address of the Psychological Section of the Indian Philosophical Congress, 1930. *Indian J. Psychol.*, 1930, 5, 119-146.—Submits that the basis of Indian philosophical thought as presented by the rishis in the Upanishads is essentially psychological in outlook. Interpreted from the psychological viewpoint, much that is obscure in the Vedas and the Sastras becomes highly meaningful. The motive which led the rishis in their quest after wisdom appears to have been scientific curiosity. They started out with no preconceived notions, but were guided by their own unsophisticated experience. A striking illustration both of the motive and the method may be found in the perennial search after the Brahman, or the Absolute. The quest led the rishis to postulate, in logical order, the earth, the air, space, time, as embodying the Brahman, the Support. Proceeding thence from the physical to the spiritual plane, they conceived the Brahman to be embodied first in the ego, thence in the mind, and ultimately in pure consciousness. The search for the Brahman turns out thus to be a purely psychological problem, and Aranda is achieved by him who finds the absolute. Every system of Hindu philosophy depends ultimately on the authority of the Vedas and Upanishads, which are the faithful records of introspective experiences of unsophisticated minds. Hindu philosophy teaches the method of overcoming all pain in the world and attaining a state of perfect happiness. This is why every phase of Hindu life is regulated on a philosophical basis.—L. A. Averill (Worcester State Normal School).

3160. Briffault, R. *Sin and sex.* New York: Macaulay, 1931. Pp. 253. \$3.00.—Briffault shows how the sense of sin developed from a group of primitive sex-tabooes of the Hebrews; how Christianity took over and elaborated them and fixed them in the key position in Western ethical codes; how they have acted to divert natural laws and turned several periods in the life of every individual, especially the adolescent period, into pathological states of existence. He draws his evidence from anthropological and sociological research, from history and from everyday life.—R. R. Willoughby (Clark).

3161. Brown, F. *An historical and clinical study of criminality with special reference to theft.* J.

*Amer. Instit. Crim. Law & Crimin.*, 1930, 21, 400-437.—(*Soc. Sci. Abst.* III: 8286).

3162. Burrow, T. So-called "normal" social relationships expressed in the individual and the group, and their bearing on the problem of neurotic disharmonies. *Amer. J. Psychiat.*, 1930, 10, 101-116.—A distinction is drawn between the "primary" or physiological system of man's reactions, and the "secondary" or psychological system. A concept of "phyloanalysis" is offered, which "attempts to study the sensations and reactions of the individual as the expression of reactions and sensations which are continuous throughout society as a unitary social organism." The neurosis, according to phyloanalysis, "has to do with the habitual substitution of this secondary psychological system for the primary physiological system of man's reactions and with the consequent blocking and distortion of his essential feeling-life."—*S. J. Beck* (Boston Psychopathic Hospital).

3163. Butler, A. W. What the courts, the prisons, the employer and the public should know of the prisoner. *Indiana Bull. Charities & Corrections*, 1930, No. 187, 421-428.—(*Soc. Sci. Abst.* III: 7961).

3164. Calverton, V. F. [Ed.] The making of man. New York: Modern Library, 1931. Pp. xv+879. \$95.—A book of readings on anthropology; the section headings are Fossil and Prehistoric Man, Race and Language, Social Organization, Sexual Customs and Social Practice, Religion, and Evolution of Attitudes. There are paragraph biographies of the contributors and a bibliography of five pages, besides numerous chapter references.—*R. R. Willoughby* (Clark).

3165. Chatterjee, N. Mental test of a Bengalee girl. *Indian J. Psychol.*, 1930, 5, 185-193.—Discusses and records results of a series of mental tests performed upon a 6-year-old Indian girl. Finds her to rank slightly higher than Baldwin's records in 5 of the 8 tests used.—*L. A. Averill* (Worcester State Normal School).

3166. Cheslock, L. Introductory study on violin vibrato. *Peabody Conservatory of Music, Res. Stud. in Music*, 1931, 1, No. 1. Pp. 79.—This study opens a monograph series edited by Otto Ortmann. In the present work two types of apparatus were employed: (1) photographs were made of the moving finger by the attachment of a small light bulb at the end of an aluminum strip shaped to fit the finger; (2) later in the study an oscillograph was used. Among the most important conclusions the following may be listed: (1) The average vibrato rate for good violinists was found to be 6.4 per second with a range from 5.5 to 7. (2) The rate is practically the same at all intensities. (3) There is a direct correlation between tonal intensity and width of vibrato movement. (4) The acquisition of violin vibrato can best be begun with a speed of one or two a second. (5) There is great similarity among violinists in both the rate and the amplitude of their vibrati. (6) At *mf* intensity, F-sharp, first position, D-string, the typical pitch-range

was 6.3 d.v. with a variation range of 9.4 to 5.4 d.v. (7) A pitch-range of more than a quarter-tone tends to produce the sensation of two different pitches, and is therefore undesirable.—*P. R. Farnsworth* (Stanford).

3167. Coleman, S. M. "Two on a tower": an analytical study. *Brit. J. Med. Psychol.*, 1931, 11, 55-77.—The characters of six of Thomas Hardy's novels when studied comparatively fall into groups with a stereotyped ground pattern. A marked feature of the novels is the dynamic influence of the environmental background in reflecting the moods and molding the characters and destinies of the people. The author's life and environment are studied for motives determining the architecture of the romances. Finally a more detailed examination of *Two on a Tower* is undertaken. The thesis of the paper is that the tales are a symbolic projection of the author's unconscious conflict between culture and learning and the necessity of renouncing them if he would harmonize himself with nature, ultimately the mother. The fact that all the novels end in tragedy shows that they offer no solution, and this fact explains Hardy's pessimism.—*E. R. Hilgard* (Yale).

3168. Covington, F. C. Color; a factor in social mobility. *Sociol. & Soc. Res.*, 1930, 15, 145-152.—(*Soc. Sci. Abst.* III: 8176).

3169. Delafosse, M. The negroes of Africa. (Trans. by F. Fligelman.) Washington: Associated Publishers, 1931. Pp. xxxiii+313. \$3.15.—The original was in two books, *Les Noirs de l'Afrique*, 1921, and *Civilizations Negro-Africaines*, 1925; four chapters have also been added from *Les Nègres*, 1927. A preface has been contributed by H. Labouré, who succeeded Delafosse in several colonial administrative posts. The entire continent is treated, with emphasis on the Sudan. The first six chapters are devoted to history; chapters follow on political organization, material culture, property, the family, social institutions, religion, morality, art, and literature. A closing chapter of evaluations takes the position that retardation of the negro civilizations is due to long isolation. There are full bibliographies and indexes.—*R. R. Willoughby* (Clark).

3170. Dennis, W. Some traits of certain persons associated with carnival attendance. *J. Soc. Psychol.*, 1930, 1, 315-317.—Attendance was obtained by copying license plate numbers of 150 parked automobiles at the carnival grounds. The persons owning these licenses were determined from the state automobile registration records. Their names were sought in the city directory and compared with a random sample of 200 taken from the city directory as to occupation, etc. No statistically reliable differences were found.—*R. C. Travis* (Western Reserve).

3171. Dennis, W. Registration and voting in a patriotic organization. *J. Soc. Psychol.*, 1930, 1, 317-318.—"The voting strength of the Daughters of the American Revolution is much greater than that of an equal-sized group of the average popula-



tion. A group of superior social status has a greater voting strength than a group of the same size from the population at large, but less than a numerically equivalent group of D. A. R.'s"—R. C. Travis (Western Reserve).

3172. Eliasberg, W. Die abnorme Triebhandlung in forensischer Beurteilung. (The judicial evaluation of abnormal impulsive activity.) *Monatssch. f. Krimpsychol. u. Strafrechtsref.*, 1930, 7, 412-422. —The answer to the practical question concerning responsibility, especially in the matter of sexual delinquencies, is dependent upon the degree of discernment on the part of the person at the moment of the occurrence of the impulse. "Meanwhile great vagueness prevails concerning the impulsive individual, both in connection with his activities in general and in relation to the moment of his guilty act. Criminal and non-criminal acts both can spring from the sphere of impulse. Impulsiveness as such is neither a characteristic of the abnormal nor of the act deserving exculpation." The author distinguishes lawful normal and abnormal impulsive acts from punishable normal and from exculpable abnormal impulsive activities. "Impulsive acts may, in the legal sense, be treated as those of a responsible individual." The author describes and investigates thoroughly the criteria used by the law in determining what abnormal behavior may be regarded as irresponsible. Bibliography appended.—W. Beck (Leipzig).

3173. Gillin, J. L. Taming the criminal. New York: Macmillan, 1931. Pp. vii + 318. \$3.50.—The author of these "adventures in penology" spent the year 1927-28 studying various prison systems throughout the world. He was astonished at two conditions: (1) How, the world over, prison systems have been influenced by English and American precedents; (2) How many experiments have been made by other peoples on the basis of the old models. Only the penal and correctional systems of Japan, the Philippine Islands, Ceylon, India, Switzerland, Belgium, England, and some of the Southern United States seem to provide suggestions of great value and originality. Special investigation was made of Oriental systems. England possesses the most elaborate system of classification of prisoners, in order to prevent prison contamination, ever put into practice; other leaders in this field of classification are Japan, Ceylon, and Belgium. Belgium is perhaps the only country which has devised its prison system for the purpose of bringing about individualization of treatment of prisoners. The famous Borstal institutions of England are a cross between an American juvenile reformatory and an adult reformatory: these institutions are for the treatment of young offenders. For those discharged from the Borstal institutions there is a special Borstal association to aid them in securing economic independence. Nowhere is the scheme of self-government suggested by Osborne carried out very extensively; possibly the greatest degree of self-government is to be found in the penal systems of Ceylon

and the Philippines. After-care is handled by private agencies in Japan, Ceylon, England and India. In America scarcely anything is done in the way of after-care. The device of progressive stages toward release is found in the Philippines, India, and Switzerland. The matter of prison labor and profitable employment of prisoners upon waste land is best developed in the Philippines, India, Belgium, Switzerland, and the Southern United States. Prison officials are selected with the greatest care in Japan, India, Switzerland, and England. Japan stands out for its system of training prison officials. The Philippines and India are the only two countries which keep intact economic and family ties for the prisoner as a special privilege. Holland, Belgium, and Switzerland are the experimental stations of Europe in the socialization of the offender.—P. C. Squires (Clinton, N. Y.).

3174. Grewal, D. K., & Jalota, S. W. On kissing. *Indian J. Psychol.*, 1930, 5, 171-184.—The process of kissing generally implies love and sometimes the pleasure of sexual gratification, though at times it is misused to express humility and submission. Traces the development of acts analogous to kissing in animals, and finds that they produce a satisfaction to both the parties and seem to increase an ardor for sexual gratification. The pleasant kinesthetic complex associated with playful sucking during human infancy survives in the unconscious, and in later kissings is revived to enhance their pleasure. A kiss always gratifies the libido.—L. A. Averill (Worcester State Normal School).

3175. Harper, F. V., & Reinhardt, J. M. Four relationship status of a group of delinquent boys. *J. Amer. Instit. Crim. Law & Crimin.*, 1930, 21, 379-392.—(*Soc. Sci. Abst.* III: 8289).

3176. Hirschberg, — Zur Psychologie des Wiederaufnahme-Verfahrens. (Concerning the psychology of the second trial.) *Monatssch. f. Krimpsychol. u. Strafrechtsref.*, 1930, 7, 395-412.—The author designates "the psychology and pathology of the formation of the judicial decision" as the central problem of criminal psychology. He takes his departure from a consideration of a few selected instances of the miscarriage of justice and reveals possible sources of error leading to failures of the judicial process. In order to render these sources of error harmless, he sets forth a comprehensive and penetrating portrayal of the psychology of the judge and of the judicial profession; this psychology has formerly been entirely neglected. Science must "substitute for the abstract psychology of the judge a doctrine of types; there must be made available a scale of intellectual, spiritual and ethical varieties." Science must aim to discover "in what ways the judicial decision is founded in the intellectual processes." Furthermore, there is much needed an analysis of the personality of the judge, an analysis of the effect of the social environment upon the judge, and an analysis as to the effect of the judicial calling upon its follower. From such a science the author expects more progress than can be obtained from

the inadequate juristic treatment in respect to the matter of the second trial. Bibliography appended.—W. Beck (Leipzig).

3177. Hodge, A. *Prayer and its psychology*. New York: Macmillan, 1931. Pp. 220. \$2.25.—This essay, by a clergyman, was approved as a Ph.D. thesis at the University of London. Its purpose is to help vindicate Christianity in terms of psychological thought. Prayer is regarded as the heart of religious consciousness. Its nature involves the essentials of the religious life, and is at the same time an index of the stage of development of the worshiper. It takes for granted that God is not only an objective reality, but also a superior personality, and is responsive. Without this belief prayer would be meaningless. Whereas with the material world careful observation and reason are needed to give conviction, in this inner realm of mystical experience complete certainty comes without the use of logic. In religion we find two contrasting motives: one egocentric, in which the worshiper's wishes are paramount, and the other theocentric, in which ascendancy is yielded to the object worshiped. Both are represented even in modern prayer. While the former is derived from magic, the latter is the more truly religious. Considered psychologically, prayer is not strictly an instinct, but is instinctive, being allied with the instincts of submission, parenthood, gregariousness, etc. It is necessarily related to the subliminal mental processes and dominated by auto-suggestion. These conditions favor communications from a supra-human realm if such are possible. There is no doubt but that attributes of God are "projected" from human qualities, but the author differs from Freud and Jung, who regard this projection as the whole of deity. He believes the religious man's prayerful consciousness enables him to apprehend an ultimate reality which he calls God. The volume is provided with a detailed bibliography and index.—J. P. Hylan (Stoneham, Mass.).

3178. Ishihashi, M. *Blood types of criminals*. *Shakai-i-gaku Zasshi*, 1929, No. 509.—500 criminals at Niigata criminal court and detention homes were given blood tests. It was found that among habitual criminals O type predominated. Highway robbers, murderers, and arsonists were also mostly of O type, and swindlers and embezzlers were mostly of A type.—J. G. Yoshioka (Yale).

3179. Johnson, G. B. *A summary of negro scores on the Seashore musical talent tests*. *J. Comp. Psychol.*, 1931, 11, 383-393.—The Seashore Measures of Musical Talent were given to 3300 negroes in colleges and graded schools in Virginia and the Carolinas. Comparisons were made with white norms worked out by Seashore for fifth grade, eighth grade, and adult subjects. While most of the differences favored the whites, they were not significant enough to indicate any distinct racial differences. A tendency on the part of the negroes to confuse the responses "higher" and "lower" in the pitch test was noted. This is due to their lack of any verbal response pattern in terms of "higher" and "lower." Difficul-

ties arising from the physical environment of negro school rooms, from inhibitions due to the presence of a white experimenter, and from general cultural and educational retardation, lead to the conclusion that it is impossible to obtain entirely satisfactory results from southern negro subjects without the use of a more intensive technique than Seashore used for whites.—G. B. Johnson (North Carolina).

3180. Kenyon, E. L. *The treatment of stammering. An introduction to a nation-wide cooperative study of the treatment of stammering*. *Quar. J. Speech*, 1931, 17, 226-235.—Address given by the president to the American Society for the Study of Disorders of Speech, Chicago, December 31, 1930. A presentation of two facts significant in speech correction. The first is that after generations of study of the disorder, diversity of opinion and confusion as to principles and method of treatment are perhaps more in evidence than ever; and the second is that literature on treatment as compared to literature on manifestation and cause is lacking. A written science of the treatment of stammering still remains to a large degree unaccomplished. "The plan of cooperative study, in so far as already conceived, includes, first, a survey (especially as to principles) of all ideas concerned with the treatment of stammering; that idea constitutes the purposes of this present meeting. Second, the careful analysis of the presentations made by this survey. The purpose of such study is to determine clearly differences and agreements. Thoroughness rather than haste is the thought. Third, after a year of such study, during which interchange of ideas by correspondence should play an important part, the proposal is again to present to the convention the results of this analytical study."—E. D. McDowell (Teachers College).

3181. Krische, P., & Krische, M. *Der Internationale Kongress für Sexualreform in Wien*. (The International Congress for Sexual Reform in Vienna.) *Neue Generation*, 1930, 26, 242-245.—(*Soc. Sci. Abst.* III: 8343).

3182. Ledig, —. *Strafjustiz und Seelenforschung*. (Penal justice and psychology.) *Justiz*, 1930, 6, 92-96.—(*Soc. Sci. Abst.* III: 7973).

3183. Lublinski, I. *Entstehung und Weiterentwicklung des altorientalischen Mythos*. (Origin and further development of the ancient oriental myth.) *Zsch. f. Ethnol.*, 1929, 61, 278-304.—(*Soc. Sci. Abst.* III: 6692).

3184. Lublinski, I. *Eine weitere mythische Urschicht vor dem Mythos*. (An eo-mythological thought stratum.) *Zsch. f. Völkerpsychol.*, 1930, 6, 35-64.—(*Soc. Sci. Abst.* III: 6691).

3185. MacGormick, A. H. *The education of adult prisoners*. New York: National Society of Penal Information, 1931. Pp. xxi+456. \$2.50.—The author, who is assistant director of the United States Bureau of Prisons, has presented in this volume a survey and a program. The total number of institutions of major importance visited was about 110.



The educational work in the penal institutions of the country was found to be so limited that the main part of the writer's task was not to record what was being done, but to formulate a practicable as well as an ideal program for the education of adult prisoners. "The typical prisoner is a young man or woman who needs education." Individual differences must be stressed. The prisoner should be given the opportunity for as much education as he can assimilate. Social education of the prisoner should be the primary aim of penal institutions. Samples of the topics treated are: the teaching of illiterates; vocational education; the use of visual aids in education; classrooms, shops, and equipment; the education of women prisoners; cultural and health education; the library as an agency of education; the teaching of formal school subjects such as English, arithmetic, history and government. A number of appendices are presented, one of which deals with the matter of intelligence and achievement tests.—P. C. Squires (Clinton, N. Y.).

3186. Mathewson, S. B. *Restriction of output among unorganized workers.* New York: Viking, 1931. Pp. 256. \$3.00.—R. R. Willoughby (Clark).

3187. Müller, J. *Moral und Moralstatistik.* (Morality and statistics of morality.) *Allg. stat. Arch.*, 1930, 20, 319-328.—(*Soc. Sci. Abst.* III: 8352).

3188. Murray, E. A rejoinder. *Amer. J. Psychol.*, 1931, 43, 290-292.—The author indicates that White and Landis (*Amer. J. Psychol.*, 1930, 42, 431-435, *ibid.*, 1931, 43, 289-290) have over-simplified the problem of esthetics, although she emphasizes the importance of the experimental technique.—D. E. Johansson (Rochester).

3189. Nakamura, R., & Shikiba, R. The second report of psychological studies of criminals—a study of intelligence. *Hokuyetsu Igakkai Zasshi*, 1929, 44, No. 1.—Mental tests were given to 163 criminals at the psychological laboratory, Tokyo Imperial University. The results showed that only 6.1% scored above established norms for the normal. Embezzlers and counterfeiters scored the highest; murderers, swindlers, robbers, petty thieves, arsonists and gamblers followed in order. These criminals scored very low as compared with the normal in logical inference and opposite tests, and they almost equalled the normal in motor speed test. Repeaters scored on an average lower than first offenders.—J. G. Yoshioka (Yale).

3190. Peterson, J. Some effects of environmental factors and of unreliability on rate and variability in psychological development. Conference on individual differences in the character and rate of psychological development. (Iowa City, Iowa, December 28, 1930.) Washington: National Research Council, 1931. Pp. 35-40.—Tests were given to 12-year-old negro children on St. Helena Island, South Carolina, and results compared with corresponding tests given to Nashville negroes and Tennessee and Ohio whites. Since unreliability increases the size

of the standard unit ( $\sigma$  or  $Q$ ) used in group comparisons, a correction is introduced for this influence of unreliability. The significance of differences is expressed in a critical ratio, the ratio of the differences in medians to the probable error of the difference as corrected in view of the unreliability of the tests. Rational learning tests give smaller differences than the performance tests used. In rational learning scores, the Nashville negroes exceed the island negroes, but by an amount which is less than that by which the whites exceed the island negroes. The statistical method is discussed, a table of data presented, and suggestions offered toward interpreting the findings.—E. R. Hilgard (Yale).

3191. Piper, W. Sources and processes in the writing of fiction. *Amer. J. Psychol.*, 1931, 43, 188-201.—The author of *Son of John Winteringham* describes the genesis of this particular book and the development of the writing habit from his early childhood. The various "factors and stages that have gone to make up the fictional faculty (are) . . . crude emotion; there is a capacity for projecting emotional states; there is a trained habit of verbalization and of the realizing sense of character; there is a need of escape by means of expression; there is a desire to give a fixed and localized reality to subjective perception; there is the hope of being able to grasp the discrete elements of reality and to form from them a living conception of experience."—D. E. Johansson (Rochester).

3192. Preobrazhenskii, P. *Realizm primitivnykh religioznykh verovanii.* (Realism of primitive religious beliefs.) *Etnografika*, 1930, 11, 5-20.—(*Soc. Sci. Abst.* III: 6693).

3193. Riddle, D. W. *The martyrs: a study in social control.* Chicago: Univ. of Chicago Press, 1931. Pp. 242. \$3.00.—(Not seen).

3194. Robbins, S. D., & Stinchfield, S. M. *A dictionary of disorders of speech.* Boston: Amer. Soc. Stud. Disorders of Speech, 1931. \$60.—A compilation of terms used in the treatment of disorders of speech, giving definitions used by various authors in the past and proposing the new terminology adopted by the nomenclature committee of the American Society for the Study of Disorders of Speech. The committee divided speech defects into seven classes: dysarthria, dyslalia, dyslogia, dysphasia, dysphemia, dysphonia, and dysrhythmia. Each class was divided into descriptive groups by replacing the prefix *dys* with a suitable descriptive prefix. Each group, in turn, was further divided into causal varieties by adding to the name of the given group the necessary causal suffixes. The classification in the dictionary shows the working of this system. The working classification of disorders of speech which the dictionary contains enables one to see at a glance just what relation a given speech defect has to others and connects the English term with its scientific term.—E. D. McDowell (Teachers College).

3195. Rojas, N. *Discusión sobre un delito por celos.* (Discussion of a crime motivated by jealousy.)

ousy.) *Rev. de crim. psychiat. y med. leg.*, 1930, 17, 268-272.—(*Soc. Sci. Abst.* III: 8291).

3196. Root, W. T. The causes of crime. *Pittsburgh Rec.*, 1930, 5, 41-48.—(*Soc. Sci. Abst.* III: 8292).

3197. Savorgnan, F. Nuovi contributi allo studio dell'attrazione matrimoniale. (New contributions to the study of matrimonial attraction.) *Gior. d. econ.* (Nov.), 863-882.—(*Soc. Sci. Abst.* III: 8292).

3198. Schmid, C. F. Suicide in Seattle, Washington, and Pittsburgh, Pennsylvania: a comparative study. *Univ. Pittsburgh Bull.*, 1930, 27, 149-157.—(*Soc. Sci. Abst.* III: 8307).

3199. Schawer, C. Sur la signification de l'art primitif. (The significance of primitive art.) *J. de psychol.*, 1931, 28, 120-162.—A discussion of the psychological factors which appear to differentiate primitive from "civilized" art. The realism of primitive art is contrasted with the "disinterested contemplation" and illusion characteristic of "civilized" art.—N. L. Munn (Pittsburgh).

3200. Stein, E. W. Handwriting, typewriting and document expert testimony tested by its convincingness. *J. Amer. Instit. Crim. Law & Crimin.*, 1930, 21, 330-338.—(*Soc. Sci. Abst.* III: 7982).

3201. Sterzinger, O. Zur Prüfung und Untersuchung der künstlerischen Veranlagung. (On the testing and examining of artistic ability.) *Psychotechn. Zsch.*, 1931, 6, 1-10.—The article describes a battery of tests designed for the measurement of artistic ability (drawing and painting), and the ascertaining of the validity of such tests. This validity was determined by giving them to the best and poorest students of a group of 14-year-old pupils in drawing, to some artists, and to untrained people. According to Sterzinger, artistic aptitude consists of: (1) certain general abilities, such as good "sensory concentration," ability for recall, patience and perseverance; (2) some specific function complex expressed as ability to conceive and perceive form, to interpret, to appreciate relationships and harmony of color and line, and to imagine. The latter ability must be characterized by precision in imaging and facility in enlarging, multiplying and fusing images. These abilities are measured by 12 tests, some of which, however, consist merely of reporting by the questionnaire method, subjective observations of images. The testing takes about 5 hours. The procedure is as follows: The students are asked to paint a tea-box, and are graded according to originality of pattern, harmony of color, beauty of design, proportion, symmetry and rhythm. There are three ratings for each, good, 2 points; average, 1; and poor, 0. Next the students are tested in "appreciation of form," by attempting to copy a Japanese plastic. To test whether a student is capable of noticing and using fundamental points of form appreciation, he is given a series of the Ruppsechen tests for pattern completion and continuation. In order to determine an individual's peculiar artistic

tendency he is asked to analyze a number of paintings. He must tell his likes, dislikes, with reasons. The imagination test consists in a series of introspections, in which the testee is required to describe, from memory, as accurately as possible, some observed object, and to report in detail what happens, when he is asked to transfer the image from one place to another, or to multiply or increase its size. The rating for a given test is expressed in number of points. The points for a given test and for the battery of tests of the good students, are compared with those of the poor students. In all cases there was a good correlation between the test results and the criteria. The poor drawing students received from 10 to 137% lower scores, with the greatest difference for precision in reproduction from memory, and the smallest for ability to multiply images.—C. Burri (Chicago).

3202. Steshenko-Kuftina, V. Elementi muzikalnoi kulturi Paleasiatov i Tungusov. (Elements of musical culture among the Paleasiats and Tungus.) *Etnografia*, 1930, 11, 81-108.—(*Soc. Sci. Abst.* III: 6757).

3203. Stevens, E. R. Crime and criminal justice. *J. Amer. Instit. Crim. Law & Crimin.*, 1930, 21, 325-329.—(*Soc. Sci. Abst.* III: 7953).

3204. Sumner, F. C. Mental health statistics of negro college freshmen. *School & Soc.*, 1931, 33, 574-576.—After applying the Mental Hygiene Inventory devised by House to groups of several hundred negro college freshmen, as well as to some other negro college groups, the author concludes that the negroes, on the average, differ very slightly from House's norms. If one accepts House's interpretations very literally, "the negro is slightly more psychoneurotic in childhood than the white and slightly more healthy mentally than the white in maturity."—H. L. Koch (Chicago).

3205. Thouless, R. H. The psychology of religious dogma. *J. Phil. Stud.*, 1930, 5, 568-574.—(*Soc. Sci. Abst.* III: 8275).

3206. Travis, L. E., & Rasmus, B. The speech sound discrimination ability of cases with functional disorders of articulation. *Quar. J. Speech*, 1931, 17, 217-226.—Tests in which each sound in the English language was paired with every other sound and with itself, in principle, were given to 383 normal persons and 165 persons having functional disorders of articulation. The examiner pronounced pairs in standardized fashion and the subject judged whether the two sounds were the "same" or "different." The groups ranged from 5 years of age to adulthood. At every age level those having speech defects made significantly more errors on the test than did normals. Those having most severe disorders missed the sounds most prominent in their speech difficulties. No correlation between scores on the test and scores on Stanford Binet was shown in the 81 cases which received both tests. The reliability of the test is .72.—E. D. McDowell (Teachers College).



3207. Tuttle, H. S. *Appreciation as a test of social progress.* *J. Educ. Sociol.*, 1930, 4, 134-146. —(*Soc. Sci. Abst.* III: 8283).

3208. Underhill, E. *Mysticism. A study in the nature and development of man's spiritual consciousness.* New York: Dutton, 1930. Pp. xvii + 515. \$5.00.—This book, first printed in 1910, now appears in its twelfth edition. The first seven chapters deal with the characteristics of mysticism, its philosophic background and its relation to vitalism, psychology, theology, symbolism and magic, thus preparing the untrained reader for the more difficult phases of the subject. Mysticism is defined as man's innate tendency toward complete harmony with the transcendental order; and it is pointed out that it is coming more and more to represent in its intensive form the essential religious experience. Throughout, care is taken to distinguish between mysticism, occult philosophy, magic and abnormal psychic phenomena. The awakening of the mystical tendencies is similar to the experience of conversion, but is generally more intense, longer labored and leads to a more pronounced and higher order of spiritual life. It disturbs the equilibrium of the self and develops a higher plane of responsiveness in which personal interests are subordinated to a higher sense of duty. This result is arrived at through various well-defined steps. Purification, in which self-discipline frees from the fetters of the senses and unworthy desires, is followed by illumination, which gives a feeling of fellowship and actual presence of the Divine Being, accompanied by an accession of strength and peace. This stage easily develops into that of voices and visions. These are accompanied by a joy and certitude not known with the life of the senses. The great mystics have been critical of these revelations and have accepted only those that carry the earmarks of authority; yet it is here that critical psychologists have made their most defiant stand against testimony that cannot be explained on a basis of epilepsy or hysteria. The mystics have found difficulty in defending their visions, since in describing them they have resorted largely to symbolism, the usual form of religious expression, in which the language of the senses inadequately describes supersensual experiences. The author seems uncertain as to whether we have here something from beyond sense experience and the subconscious, but is willing to yield to the mystics the advantage of the doubt. The recollection and quiet employed by the mystic for purposes of contemplation may develop into trance with its ecstasy and rapture. These exercises are so exhausting that fatigue sets in, accompanied by a sense of negation and misery which may last for years. This in turn is followed by a more strongly integrated personality and a more consistent sense of union with God. As an appendix is given a history of European mysticism. There is also a bibliography and index.—*J. P. Hylan* (Stoneham, Mass.).

3209. Verwey, J. M. *Zur Soziologie der Geschlechter.* (Contribution to the sociology of sex.) *Arch. f. Phil. u. Soziol., Abt. II, Arch. f. system.*

*Phil. u. Soziol.*, 1930, 34, 142-152.—(*Soc. Sci. Abst.* III: 8156).

3210. Von Ellasberg, W., & Jankau, V. *Zur forensischen Bedeutung des Assoziations-experimentes.* (The forensic importance of association tests.) *Zsch. f. d. ges. Strafrechtswiss.*, 1930, 51, 191-198.—(*Soc. Sci. Abst.* III: 8287).

3211. Ward, H. *Builders of delusion; a tour among our best minds.* Indianapolis: Bobbs-Merrill, 1931. Pp. 381. \$3.00.—Part I, *The Bubbles They Built With*, is a popular survey of epistemology; chapters are given to experience, faith, substance, and probability, with seven others. Part II, *Some of the Castles They Build*, is destructive criticism of the results so far reached in thinking about God, philosophy, scientific method, psychology, education, and war. The point is made that psychology will attain respectability only when it ceases to be psychology.—*R. R. Willoughby* (Clark).

3212. West, R. [Ed.] *A symposium on stuttering (stammering).* Madison, Wis.: Amer. Soc. Stud. Disorders of Speech, 1931. \$3.00.—Papers presented at the meetings of the American Society for the Study of Disorders of Speech held at the Hotel Stevens, Chicago, December 30 and 31, 1930, and January 1, 1931, under the chairmanship of Elmer L. Kenyon. Prepared and distributed in the name of the society to those in attendance at the convention. A résumé of opinions on the causes of stuttering and of the techniques for treating it was offered by 23 persons now prominent in the field of speech correction. The symposium was largely concerned with the questions: What is stuttering? What causes it? and what is being done to improve the speech of the stammerer? This discussion is preliminary to a program of organized research into the problems of the treatment of stuttering which will be inaugurated shortly. Points of view were merely presented and not discussed. Those presenting papers are: R. West, *The phenomenology of stuttering*; H. J. Heltman, *The educational approach to the problem of stuttering*; P. B. Camp, *Can clinical procedure in the treatment of stuttering be used in the public schools?*; M. S. Steel, *How Dr. G. Hudson Makuen treated stammering*; C. S. Blumel, *Stammering as an impediment of thought*; L. Raubichek, *Correction of stammering in big school systems*; E. P. Estabrook, *Basis for work with stutters in Grand Rapids public schools*; M. C. Williams, *Twelve years of visual treatment of stuttering*; A. Liljgren, *Methods used in the treatment of the stuttering child in the public schools of Omaha (Nebraska)*; P. L. Schroeder, & Luton Ackerson, *Relationship of personality and behavior difficulties to disorders of speech*; S. D. Robbins, *Breath control in stammering*; J. M. Fletcher, *Dunlap's theory of the treatment of stuttering*; S. Blanton, *Stuttering*; M. F. Gifford, *A consideration of some of the psychological causes and treatment of stammering*; W. B. Swift, *Why visualization is the best method for stammering*; C. B. Stoddard, *The correction of stam-*

mering in Detroit; L. A. Ward, *The treatment of stuttering in the public schools of Wisconsin*; E. D. McDowell, *Some interpretations of recent researches in the correction of stuttering*; J. Hedrick, *The re-adjustment of the stutterer's speech*; L. E. Travis, *Diagnosis and treatment of stuttering cases*; C. G. Stivers, *Oral stuttering: one of the manifestations of the conflicts of the organic stammerer*; M. A. McGinnis, *Speech training and mental hygiene method for the correction of stuttering*; F. W. Brown, *The problem of stuttering*; I. H. Coriat, *The nature and analytical treatment of stuttering*; B. Bryngelson, *Treatment of stuttering*; J. S. Greene, *Stuttering—what about it?*; E. L. Kenyon, *Conscious detailed psycho-muscular control of speech production as an effective (if not necessary) basis for all manner of psychologic treatment of stuttering*; G. O. Russell, *Neuro-pedagogical process of treating stammerers and stutterers at Ohio State University*.—E. D. McDowell (Teachers College).

3213. White, R. K., & Landis, C. A reply to Dr. Murray's concept of aesthetics. *Amer. J. Psychol.*, 1931, 43, 289-290.—The authors are willing to admit that Murray's concept of esthetics is broader than the pleasing and displeasing aspect which their experiment attempted to study, but are unwilling to admit that such work is of no value for esthetics. They feel that it is necessary to study experimentally the simpler reactions first, in order to throw light on the higher forms of esthetic appreciation.—D. E. Johanssen (Rochester).

3214. Wilson, M. *The crime of punishment*. New York: Harcourt, Brace, 1931. Pp. 334. \$3.00.—Denounces the methods of punishment used from time immemorial and simply modified in modern times. "We ought by all means to reduce sentences to a minimum and empty prisons until they become possibly socially constructive through personal relationship." Governments should realize that "our habit of punishment is as great an evil as any crime."—P. C. Squires (Clinton, N. Y.).

3215. Wire, G. E. Index of celebrated cases, crimes, criminals, detectives, escapes, homicides, mysteries, swindles, trials, etc., described in general books (not in volumes specifically devoted to the particular case or person). *J. Amer. Instit. Crim. Law & Crimin.*, 1930, 21, 339-363.—(*Soc. Sci. Abst.* III: 8296).

3216. Wright, D. C. Prevention of juvenile crime. *Police J. (Lond.)*, 1930, 3, 601-610.—(*Soc. Sci. Abst.* III: 8312).

3217. Yerkes, R. M. Scientific method in making laws. *State Government*, 1930, 3, 3-8.—(*Soc. Sci. Abst.* III: 7932).

[See also abstracts 3053, 3103, 3105, 3107, 3114, 3118, 3123, 3130, 3151, 3153, 3230, 3231, 3240, 3242, 3243, 3248, 3250, 3252, 3288, 3290.]

#### INDUSTRIAL AND PERSONNEL PROBLEMS

3218. Bolt, R. *Das Prüfen und Anlernen von Hollerith-Locherinnen*. (The testing and training

of Hollerith punch-machine workers.) *Psychotechn. Zsch.*, 1931, 8, 19-26.—The Hollerith system, which is a form of book-keeping by means of a punch-machine, was introduced in a large industrial firm, necessitating selecting and training punch-machine operators. Each applicant was given a series of 15 tests, measuring visual acuity, visual fatigability, speed of movement, motor skill of fingers, empathy, concentration, speed, intensity of touch, intelligence, perseverance, initiative, etc. Each individual was ranked from 1 to 5, a rank of 3 indicating normal ability. From the results of the tests a psychograph was constructed for each applicant, and those who did not rate below the normal line were given a course of training in using the punch-machine. The learning procedure was similar to that for type-writing. The subjects learned to operate a machine with keys by a touch system. Training occurred during the entire work day, which was divided into periods of 5 minutes of work, separated by 2 minute periods. Later in the learning procedure the rest periods occurred less frequently. The task was broken up into eight definite parts, somewhat in the fashion of a progressive part-whole method. At first the subjects practiced using the keys, then they learned to combine them into more and more complex forms. Then they were required to practice copying from cards piled before them, which they sorted with one hand while working the machine with the other. From the results of the last stage of practice, where the whole task was combined, learning curves were constructed. In terms of amount, typical negatively accelerated learning curves were obtained with an asymptote after 30 trials of punching and sorting 250 cards. The error curve diminished very fast, falling from 140 errors after the first practice period, to 20 and less after the third period.—C. Burri (Chicago).

3219. Fergus, A. F. Vision and industrial efficiency. *Proc. Roy. Phil. Soc. (Glasgow)*, 1928-29, 57, 22-38.—(*Biol. Abst.* V: 7446).

3220. Ford, A. Neutralizing inequalities in rating. *Person. J.*, 1931, 9, 466-469.—The tendency to accept rating scores on employees without modification, where several different foremen are reporting scores, leads to unscientific and unfair evaluation of employees' efficiency. Inaccuracies due to differences in severity standards among raters can be corrected by determining "correction factors" for each rater, based on the characteristics of the frequency curve. A method of doing this is described in detail.—(Courtney *Person. J.*).

3221. Heinrich, H. W. *Industrial accident prevention*. New York: McGraw-Hill, 1931. Pp. 366. \$4.00.—Four fundamental principles in accident prevention are outlined. The first is the arousal of executive interest and support. This may frequently be achieved by studies of the cost of accidents. The actual cost in terms of compensation and medical expense represents normally about one-fourth of the total cost, because there are many hidden causes, such as loss of time by the injured, or by others,



time lost by foreman, injury to the machine or tools, and interference with production. The second principle is the analysis of the causes of accidents. About 98% are preventable, and of these 88% are largely supervisory, involving such things as faulty inspection, inability of the employee, poor discipline, lack of concentration, unsafe practice, mental or physical unfitness for the job, while only 10% are distinctly physical, such as equipment, or building conditions. The third principle is the selection and application of the remedy. At least a 50% reduction in accidents is frequently possible. Determining the cause and simply reversing it is often a satisfactory solution. In the actual application of the remedy the foreman is a key man. He must be backed by the executive and must be convinced of his own responsibility. Job analysis and placement help in this respect. The fourth principle is executive enforcement of corrective practice. This necessitates a rather consistent and continual follow-up action. The remainder of the book discusses in more detail the practices leading to the aforementioned end. Education of employees may be furthered by safety rules and efforts to direct their attention to the importance of such rules. Psychological and allied causes may be analyzed systematically. Individual susceptibility to accident, for example, has been revealed in some such studies. A rather comprehensive and profusely illustrated discussion of guards on power machinery and power transmission is given. Illumination affects accidents, particularly with reference to glare. The appendix includes lists of causes of accidents drawn from various sources; typical message to foremen; details of a publicity scheme involving a safety pledge and an industrial compensation rating schedule.—H. E. Burtt (Ohio State).

3222. Miles, W. R., & Craig, H., Jr. Color blindness in dry goods salesmen. *Person. J.*, 1931, 9, 437-449.—In San Francisco and vicinity 375 dry goods salesmen were tested individually for color blindness by means of the Ishihara plates. No women were tested. The examinations revealed 27 well-marked cases of color blindness who were actually selling colored materials. The percentage of salesmen found to have noteworthy color defect is therefore 7.2, which is only slightly less than that found among university students. From this it appears that the occupation of selling colored materials may automatically exclude the three or four worst cases (most nearly completely color blind individuals) who occur in a population of three or four hundred. But every department, with the possible exception of silk counters, had its quota of color blind salesmen. From follow-up studies it is very evident that many of these salesmen constitute a liability to the concerns for which they work. The authors strongly recommend that the Ishihara test be regularly used in personnel departments of mercantile establishments for examining people who apply for positions. No case was discovered where color blindness was being constantly used as an asset in the occupation.—(Courtesy *Person J.*).

3223. Myers, J. Industrial relations and character. *Rel. Educ.*, 1931, 26, 224-228.—The author has been personnel director in a factory for seven years and has come in contact with many industries. He finds that autocracy in factory management tends to produce in the worker the mind of either the slave or the rebel. Labor unions tend to produce self-confidence and character because the worker thereby comes to possess some rights. This result is best shown in cooperative ownership and management and indicates that the democracy of labor will develop along these lines.—J. P. Hylan (Stoneham, Mass.).

3224. Rossman, J. The psychology of the inventor. Washington, D. C.: Inventors Publ. Co., 1931. Pp. x+252. \$3.00.—Definition of invention is difficult. Courts define it negatively, e.g., not the exercise of ordinary mechanical skill. There are individual inventors, with or without adequate technical training, and group inventors under corporations. Questionnaires were sent to patent attorneys, directors of research and individual inventors. The attorneys' replies indicate that inventors are little different from other persons. Among the outstanding traits mentioned are originality, analytical ability, imagination, lack of business ability. Directors of research stress analysis, perseverance and originality. Inventors themselves mention perseverance most frequently. Actual methods of inventing involve observation and analysis of the need, survey of available information, formulation and analysis of solutions. In addition to mental processes of manipulation and trial solution there is an attitude or emotion. Some get the solution in a "flash" and others slowly. The accidental character of invention is over-emphasized. It requires ability to follow up the accident. Re-invention is frequent. Half the inventions are in the field of the inventor's own occupation. Of the group studied 60% were engineers, 24% executives, 5% mechanics. Many patent attorneys have made inventions themselves. The motives stated by inventors in order of importance are love of invention, desire to improve, financial gain, necessity. Their main obstacles are lack of capital and lack of knowledge. The main pitfalls are impracticability and over-confidence. There seems a tendency for invention to run in the family. The parents' occupations were as follows: 33% professional, 35% commercial, 16% skilled labor, 15% agricultural. Some 40% of the inventors had relatives who had invented. Psychological theories of invention are mentioned: Gestalt, subconscious, manipulation, imitation, imagination. One-third of those circularized believe that inventors can be trained. Numerous quotations from replies to the questionnaires.—H. E. Burtt (Ohio State).

3225. Seybold, L. F. Measuring and compensating office performance. *Amer. Management Assn., Office Management Ser.*, 1930, No. 54. Pp. 16.—(*Soc. Sci. Abst.* III: 7654).

3226. Wentzsch, L. Untersuchungen zum Begriff Arbeitstempo. (Investigation on work tempo.)

*Psychotechn. Zsch.*, 1931, 6, 26-32.—Wentscher raises the question of whether the work tempo for a particular individual may be traced to some fundamental factor. In other words, is there a "personal work tempo," which is more or less constant for a given individual? The author tested 100 girls on 4 different work problems: (1) a mechanical problem, which consisted merely in transferring blocks of wood from one board to another; (2) a problem similar to the first, but requiring somewhat greater care in handling, due to the fact that the blocks were smaller and had to be arranged according to a pattern; (3) a problem requiring precision, which consisted in moving a piece of paper in such a way that a pencil, which was fastened and suspended in writing position by means of a wooden arm, would retrace a figure which was drawn on the paper; (4) cutting and folding envelopes according to a prescribed pattern. The four kinds of work were chosen because they required different work components. For the first, only gross ability was needed, such as may be expected from any individual. The second kind of work, in addition to this general ability, required a certain amount of exactness. The retracing problem involved both hands, and demanded exactness as well as carefulness of procedure; while the making of envelopes needed still an additional component, namely, work insight. The results show that only 18 of the 100 girls kept the same tempo for the four different tasks, while the other 82 varied from task to task. The causes of this variability of tempo are, according to Wentscher: "Bodily discipline, set for carefulness, hand adaptability, and work insight." Therefore the belief in a personal work tempo is considered a misleading fiction.—C. Burri (Chicago).

[See also abstracts 3015, 3115.]

#### CHILDHOOD AND ADOLESCENCE

3227. Allen, C. N. Bibliographies in child study and developmental psychology. *Psychol. Bull.*, 1931, 28, 277-296.—This brief survey with bibliographical material is an attempt to present in logical and somewhat chronological sequences the material now available in child psychology. The references are grouped under the headings: general bibliographies, text-books, emotional and social development, language development, intellectual development, heredity, physical development, play, adolescence, moral development, and child labor. 222 titles are included.—J. F. Dashiell (North Carolina).

3228. [Anon.] This business of parenthood. *Harpers*, 1931, 162, 173-181.—(*Soc. Sci. Abst.* III: 8160).

3229. Childers, A. T. A study of some schizoid children. *Ment. Hygiene*, 1931, 15, 106-134.—Some observations are given here on 114 problem children of various types referred to a child guidance clinic and studied by the writer and his co-workers. Particular attention is directed to 19 of these cases, called schizoid children. The criteria utilized in

judging the nature and extent of the maladjustment of these children are: (1) the nature and extent of the child's social incapacity; (2) his habitual reaction to the situations and requirements of reality by withdrawal; (3) the nature, extent, and purpose of his fantasies; and (4) the occurrence in a given child of such definite mental symptoms as are usually observed in adult schizophrenics. In 13 of the 19 cases the child was found to occupy an unusual position in his family. The bibliography includes 15 titles.—E. M. Ligon (Union).

3230. Crane, H. W. Mental factors of particular importance for juvenile court consideration. *Soc. Forces*, 1930, 9, 216-219.—(*Soc. Sci. Abst.* III: 8276).

3231. De Arenaza, C. La infancia abandonada y delincuente. Legislación que le concierne y su estado actual en América. (Dependent and delinquent children: present status of legislation in America.) *Bol. instit. int. Amer. de protección a la infancia*, 1930, 4, 187-214.—(*Soc. Sci. Abst.* III: 8001).

3232. Foster, J. C., & Anderson, J. E. The young child and his parents. (Rev. ed.). Minneapolis: Univ. of Minnesota Press, 1930. Pp. 247. \$2.00.—Follow-up data have been collected up to four years after the first report (see II: 1332) on 74 of the original 100 cases. In general problems are found to decrease as the children grow older; this tendency is positively correlated with the excellence of the home environment.—R. R. Willoughby (Clark).

3233. Freeman, F. N. Preliminary report of a study of mental growth by repeated tests. Conference on individual differences in the character and rate of psychological development. (Iowa City, Iowa, December 28, 1930.) Washington: National Research Council, 1931. Pp. 41-49.—Growth curves are given for ages 9-17 on four tests, sentence completion, vocabulary, analogies, and opposites. The curves show certain differences; for example, sentence completion improves more between ages 11-13 than between 8-11, while vocabulary improves more in the early years and the improvement gradually decreases. There is some tendency for the variability of performance first to increase with age and then to decrease in the adolescent years. Some tentative explanations are given. There are five figures charting performance, gains and variability on the tests at different ages.—E. R. Hilgard (Yale).

3234. Purvey, P. H. Case studies in developmental age. *Amer. J. Orthopsychiat.*, 1931, 1, 292-297.—A study of the development of certain aspects of behavior in 168 school boys of ages 6, 8, 10, 12, 14 and 16 years of age reveals the emergence of definite age periods: the individualistic period (6 to 9 years), the gang age (9 to puberty), and adolescence.—H. Peak (Yale).

3235. Galvan, L. E. Estudio científico del niño peruano. (The scientific study of the Peruvian child.) *Bol. instit. int. Amer. de protección a la*



*infancia*, 1930, 4, 242-269.—(Soc. Sci. Abst. III: 8149).

3236. Goodenough, F. L. A critical and comparative estimation of methods for determining individual differences in young children. Conference on individual differences in the character and rate of psychological development. (Iowa City, Iowa, December 28, 1930.) Washington: National Research Council, 1931. Pp. 3-11.—The methods are those of psychology in general: incidental observation, systematic observation under favorable but uncontrolled conditions, and methods involving special laboratory set-ups. The incidental observation method has been used in child biographies, case histories, questionnaires, and rating scales. Case histories, being retrospective, tend to select facts in view of prevailing theories, and their scientific usefulness is thereby lessened. Systematic observation has been developed in the method of time sampling of defined behavior, or sampling in such settings as department stores or city streets. What does the child do under these conditions or in these places? The laboratory makes possible certain direct measurements where the validity is intrinsic, and the question is simply one of reliability of measurement. Standardized tests are not really measuring instruments, but rather classificatory devices. The controlled experiment offers many possibilities. The question is raised regarding motivation in tests, especially of very young children, and the tolerance to be allowed in repeating instructions or counting time out for irrelevant activity.—E. R. Hilgard (Yale).

3237. Hicks, J. A. Heredity, maturation and learning; factors affecting individual differences in the development of young children. Conference on individual differences in the character and rate of psychological development. (Iowa City, Iowa, December 28, 1930.) Washington: National Research Council, 1931. Pp. 15-18.—The value of studies of heredity, maturation and learning through the use of control and practice groups depends on the equating for the two groups of (1) heredity, (2) maturation, and (3) general practice affecting the skill studied. The fourth factor, specific practice in a given skill, affects only the practice group. The author's studies of throwing at moving and stationary targets and of tracing the Porteus diamond maze indicate that maturation plus general practice played the main rôle in bringing about the improvement in these skills. There are 9 references.—E. R. Hilgard (Yale).

3238. Hollingworth, L. S. The child of very superior intelligence as a special problem in social adjustment. *Ment. Hygiene*, 1931, 15, 3-16.—This paper deals with children who reach the highest centile for general intelligence. Data show that they are typically superior in other qualities also. In school work, determined by the capacities of the average, they have little to do. If they are advanced too rapidly, they are misplaced in other respects. In games they have more "play knowledge" than other children, especially of intellectual games.

Girls in this group show a preference for boys' games and feel a sense of sex inferiority. Problems of discipline arise especially in regard to their tendency to non-conformity. The years four to nine are the most likely to be beset with these problems.—E. M. Ligon (Union).

3239. Hurt, H. W. The child and his home. Practical contributions to child culture from modern research. New York: Minton, Balch, 1931. Pp. xiv + 260. \$2.50.—The recommendations in this book are based upon the conclusions of the White House Conference on Child Health and Protection. Every child is entitled to a home which provides an atmosphere conducive to child culture; opportunity for child activities; conscious solidarity; and co-operation with outside agencies of welfare. Other essentials for development are sufficient leisure, and chances for active recreation apart from the passive entertainment offered by commercial amusements; training in assumption of responsibility, and in personal health responsibility; guidance in choosing the right job. The problems of the institution are the same as those of the home, in addition to the specialized care which is the right of the unfortunate child. The home is essentially a situation of adult-child relationship. The satisfactory home is one in which there is a happy adjustment of this relationship. Parents should make full use of the great amount of material available through which they may become familiar with the latest conclusions of science concerning child care. The book contains reference tables giving lists of child welfare agencies, leisure time organizations, health and disease statistics, food values.—M. P. Montgomery (Faribault, Minn.).

3240. Kufaeff, B. Die Gesetzgebung für minderjährige Verbrecher in Sowjet-Russland. (Legislation for delinquent minors in Soviet Russia.) *Zentbl. f. Jugendrecht u. Jugendwohlfahrt*, 1929, 21, 199-208.—(Soc. Sci. Abst. III: 8009).

3241. Levy, J. A quantitative study of the relationship between basal metabolic rate and children's behavior problems. *Amer. J. Orthopsychiat.*, 1931, 1, 298-310.—Using the Benedict-Roth apparatus, the author has studied 138 boys and 117 girls who had been referred to the guidance clinic for behavior disturbances and whose physical and psychiatric examinations suggested glandular imbalance. The results indicate that there is no relationship between intelligence and the basal metabolic rate in the problem children studied. In a selected group of these children who were doing poor school work in spite of adequate intelligence, the absence of physiological "drive" may be responsible for the difficulty. The author feels that because of the numerous uncontrolled extra-behavior factors in such an investigation, the general relationship between metabolism and behavior is difficult to establish and of doubtful existence.—H. Peak (Yale).

3242. Loomis, A. M. A technique for observing the social behavior of nursery school children. New

York: Teachers College, Columbia University, 1931. Pp. xi+100. \$1.50.—The aspect of behavior chosen was physical contact; two principal observers and a checking observer observed 27 nursery school children for two hours in 15-minute periods; the contacts observed were categorized when recorded. Extended treatment was accorded reliability data, with the general result that although bias was present, a high and presumably improvable degree of observer reliability was shown to exist. Suggestive correlations were found between physical contacts and muscular tension, use of language, and age. Methodological comment follows at some length.—*R. R. Willoughby (Clark)*.

3243. Maruyama, R. Studies on delinquent children. *Kyoiku Shinri Kenkyu*, 1929, 4, No. 4.—Representative delinquent boys (84) and girls (12) in Aichi Prefecture, Japan, were given intelligence tests and interviewed. It was found that 15-20% of them were feeble-minded. Many of them were adopted or illegitimate children, 13% lacking both parents, 13% lacking one parent. Only 22% were under the care of living fathers and mothers. The studies extended to occupations and incomes of guardians, number of brothers and sisters, birth order, locality of early environment, employment, schooling, scholarship, and criminal behavior.—*J. G. Yoshioka (Yale)*.

3244. Olson, W. C. Oral habits in children. *Amer. J. Orthopsychiat.*, 1921, 1, 311-316.—Nervous habits related to the mouth are "quantitatively unaffected by age but are influenced by, or are the concomitants of, such factors as sex, familial resemblance, family history, imitation, fatigue and nutritional status."—*H. Peak (Yale)*.

3245. Piaget, J. Le développement intellectuel chez les jeunes enfants. (Intellectual growth in young children.) *Mind*, 1931, 40, 137-160.—An exposition of and reply to a book by the same name (in English) published by S. Isaacs, in which Piaget's findings are discussed. The principal differences between the author of this reply and the author of the book lie in the interpretations of facts substantiated by both.—*H. Helson (Bryn Mawr)*.

3246. Preston, G. H., & Shepler, W. McL. A study of the problems of "normal" children. *Amer. J. Orthopsychiat.*, 1931, 1, 245-256.—A psychiatric and social investigation of all the children (45) in one section of a third grade and in one section (38) of a fifth grade of a slightly better than average city public school reveals the fact that "on the basis of their intelligence, their physical condition, or their behavior" these children could not be distinguished from 17 children who had been classed by child clinics as needing psychiatric treatment. Certain types of behavior such as day dreaming, defensive lying and fears, actually occurred more often in the "normal" control group than in the "problem" group. When dissimilarity is the most striking feature of behavior, establishment of average "normal" behavior becomes difficult.—*H. Peak (Yale)*.

3247. Ripin, R. A study of the infant's feeding reactions during the first months of life. *Arch. of Psychol.*, 1930, No. 116. Pp. 44.—"When does the baby recognize the bottle?" is the question which led to the consideration of several problems: (1) What is the nature of the feeding reactions of the infant at different age-levels within the first half year of life? (2) How does the behavior of the bottle-fed baby compare with that of the breast-fed? (3) Are there specific reactions to the bottle or breast, when do these appear, and how are they affected by hunger and satiety? (4) What relationship exists between specific feeding reactions and other behavior components, principally the child's social reactions? Ten series of observations were made, six with bottle-fed and four with nursed babies, on 272 subjects, one day to six months old. The neonate is incapable of making active adjustments in seeking or obtaining nourishment. Feeding reactions are elicited only by direct contact in the region of the cheek and mouth. The cue element, i.e., that detail of the whole nursing situation to which the child reacts, is a combination of the peculiar nursing posture, the movement which initiates it, and the physical contact with the mother. The sense of smell plays no part in eliciting a specific response.—*E. M. Achilles (Columbia)*.

3248. Sielaff, E. Schülerbücherel und Schundbekämpfung. (The reading of school children and the campaign against juvenile delinquency.) *Bücherel u. Bildungspflege*, 1931, 10, 467-486.—(*Soc. Sci. Abst.* III: 8319).

3249. Staples, R. Color vision and color preference in infancy and childhood. *Psychol. Bull.*, 1931, 28, 297-308.—A summary of the major investigations published between 1890 and 1931, including methods involving and not involving language responses, studies of racial differences, and studies on perception. 44 titles are included.—*J. F. Dashiell (North Carolina)*.

3250. Stebnitskii, S. N. Koryatshie deti. (Kor-yak children.) *Sovetskii Sever.*, 1930, 4, 39-47.—(*Soc. Sci. Abst.* III: 6756).

3251. Stekel, W. A primer for mothers. (Trans. by F. Ilmer.) New York: Macaulay, 1931. Pp. 400. \$3.50.—The book is arranged as a series of informal letters to a mother, in constant consultation with him from before the birth of her child to its maturity. It deals mainly with the psychological care and training of the child, emphasizing the fact that the physical care of the child, so scrupulously considered by parents, can far more safely be left to nature than the psychological care, which requires constant sympathetic understanding. The author shows that the apparent breakdown of the family group is mainly due to a lack of understanding of the necessary psychological adjustments.—*R. R. Willoughby (Clark)*.

3252. Towle, C. The evaluation and management of marital situation in foster homes. *Amer. J. Orthopsychiat.*, 1931, 1, 271-283.—*H. Peak (Yale)*.



3253. Tulchin, S. H. Note on mental acceleration at adolescence and the related problem of mental age of adults. *Amer. J. Orthopsychiat.*, 1931, 1, 257-270.—A survey of experimental work on the course of the mental growth curve, reveals no evidence of any marked or consistent increase in rate of growth at puberty. There is no experimental basis for stating that the average mental age of adults is fourteen or lower. The facts are as yet unknown.—H. Peak (Yale).

[See also abstracts 2985, 2999, 3031, 3083, 3121, 3175, 3214.]

## EDUCATIONAL PSYCHOLOGY

3254. Anastasi, A. A group factor in immediate memory. *Arch. of Psychol.*, 1930, No. 120. Pp. 61.—The study undertakes to find an experimental answer to the question of the existence of a common factor through a number of memory tests and its relation to other factors. A summary of the previous experimental work on memory is made in table form, and includes a bibliography of 32 items, number and kind of subjects used, the test material used, the intercorrelation coefficients and the reliability coefficient. The tests used were: (1) paired associates—word-word (four letters English); (2) paired associates—picture-number (3x3 inches pictures from magazines—two place numbers with no zeros); (3) paired associates—(form-word geometrical form); (4) paired associates—color-word (colored forms and four letter English words); (5) digit span—parallel forms ranging from 4 to 13 digits; (6) retained numbers (four letter English words); (7) recognition of geometrical forms; (8) recognition of three letter nonsense syllables. Besides these memory tests the following tests of other traits were used: multiple choice vocabulary test; arithmetic reasoning test; Minnesota paper form board, tests A and B. The subjects were 225 students. Evidence of the presence of a central factor through the memory tests was found in: (1) the size of the average intercorrelation of the memory tests; (2) the results of the application of the tetrad criterion; (3) the correlations of each test with a central factor. The independence of the central factor in the memory tests was shown by the correlations of the non-memory tests with the central memory factor, all of which were smaller than 4P.E.. A comparison of the data with those of Schneek on the verbal and number factors shows considerable uniformity in the results of the two studies.—E. M. Achilles (Columbia).

3255. Anderson, M. L. Why special classes? *Ment. Hygiene*, 1931, 15, 87-100.—We have learned that compulsory attendance does not mean compulsory education. A large percentage of the school population differ so much from the general average that they need special instruction. This applies to those above average as well as to those below average. This paper deals with the needs of those below average: institution cases—with IQ's below 50; sub-normals—with IQ's between 50 and 70; and border-

line normals—with IQ's from 70 to 85. The second group has received the bulk of the attention. The next task will be to organize educational facilities for the border-line children. Suggestions as to the nature of this organization are made.—E. M. Ligon (Union).

3256. Angé, L. Teaching films from the psychological and educational points of view. *Int. rev. educ. cinemat.*, 1930, 2, 1264-1270.—(Soc. Sci. Abst. III: 8230).

3257. Appel, K. E., & Smith, L. H. The approach to college mental hygiene. *Ment. Hygiene*, 1931, 15, 52-71.—What opportunities for mental hygiene in college does the practicing psychiatrist see, judging from his patients who have attended college? To obtain a tentative answer, the authors have taken the records of seven women, from their practice, and analyzed their histories. College mental hygiene has three aspects: first, the therapeutic—the early diagnosis and treatment of significant personality difficulties; second, the preventive—the giving of knowledge and help that will sustain a person through the stresses of the average life; and third, the constructive—the fortifying of countless individuals with the principles of mental hygiene so that the efficiency and happiness of their lives may be increased. A tentative or ideal outline for a program of mental hygiene is presented. Thirteen references are cited.—E. M. Ligon (Union).

3258. Arnold, H. J. Abilities and disabilities of college students in elementary algebra. *J. Educ. Res.*, 1931, 23, 324-329.—Results obtained by giving the Hotz First Year Algebra Scales to two freshman classes in college algebra at Wittenberg College. An analysis is made of the distribution and the kinds of errors. It results that 66% of the group (52 cases in all) failed to score up to the standard first year high-school norm. The most frequent errors involved the use of fractions.—S. W. Fernberger (Pennsylvania).

3259. Banker, H. J. Mental age distribution in school progress. *J. Educ. Res.*, 1931, 23, 273-279.—Study of the successive distribution of the average mental age of the students as actually determined for each year of school life from the first primary grade through college for a sixteen-year period. The Stanford Binet was used, and the results taken from experiments already appearing in the literature. Up to the beginning of the college age the mental age curve is almost exactly corresponding to the theoretical straight line. A break occurs in the second year of high school and the mental age curve from then on progressively falls below the theoretical straight line.—S. W. Fernberger (Pennsylvania).

3260. Bolton, F. E. Adolescent education. New York: Macmillan, 1931. Pp. xv + 506. \$3.00.—A textbook in the style of Hall; a large proportion of opinion and exhortation is combined with quotations of the same nature and some factual material.—R. R. Willoughby (Clark).

3261. Bovard, J. F., & Cozens, F. W. Tests and measurements in physical education. Philadelphia: Saunders, 1931. Pp. 364. \$2.75.—(Not seen).

3262. Breslich, E. R. Breslich algebra and geometry survey tests. First semester, Forms A and B. Bloomington, Ill.: Pub. School Publ. Co., 1931.—The aim of the algebra test is to help the teacher or supervisor determine at the end of the first semester how much algebra the pupils have assimilated, and where the work needs to be strengthened. Each form of the test contains 6 parts. The aim of the geometry test is to ascertain how successfully the pupil can handle five fundamental geometrical laws, facts, principles, etc.—L. A. Averill (Worcester State Normal School).

3263. Brotemarkle, R. A. The development of personality at the college adult level. *Person. J.*, 1931, 9, 455-465.—The terms "character" and "personality" are defined and illustrated. A comprehensive analysis is made of the factors involved in college adult personality development. The general functional aim of each factor or group of factors is presented with the hope of shedding light on the construction of programs and methods of personality development in college.—(Courtesy *Person. J.*).

3264. Cady, B. C. Animal pets; a study in character and nature education. Ithaca, N. Y.: Slingerland-Comstock, 1931. Pp. 61. \$1.00.—W. S. Hunter (Clark).

3265. Engelhart, M. D. The effect of exemption from final examination on the distribution of term grades. *J. Educ. Res.*, 1931, 23, 319-321.—Study of the term grades of 333 students in chemistry at the Georgia School of Technology where exemption is practiced gives a bi-modal curve with a break at the 80% grade, but also shows a large number of cases just above the exemption 80% point.—S. W. Fernberger (Pennsylvania).

3266. Engle, E. M., & Stenquist, J. L. Engle-Stenquist home economics test. Yonkers: World Book, 1931. Three 8-page tests in two forms each; key; 8-page manual.—Tests in foods and cookery, clothing and textiles (grades 5-10), and household management (grades 7-10); the items are multiple-choice, true-false, matching, and short answer. The three tests containing 394 items, administration time 60 minutes. Items have been carefully scrutinized before inclusion, and results correlate .52 to .98 with teachers' objective examinations. Test-retest reliabilities (interval 10 minutes), based on 103-149 cases, range from .85 to .96. Age and grade equivalents and percentile norms based on 10,000 to 15,000 cases are presented.—R. R. Willoughby (Clark).

3267. Enrich, A. C. [Ed.] The changing educational world, 1905-1930. Minneapolis: Univ. Minnesota Press, 1931. Pp. xii + 311. \$3.00.—Papers read on the occasion of the twenty-fifth anniversary of the college of education of the University of Minnesota.—M. B. Jensen (Michigan Central State Teachers College).

3268. Fife, R. H. The teaching of modern foreign languages. A national survey. *J. Educ. Res.*, 1931, 23, 296-307.—Results of a four-year survey involving 83% of the enrollment in all public and private secondary schools in the United States and 40% of all colleges. The results are outlined without the statistical data.—S. W. Fernberger (Pennsylvania).

3269. Hohenstein, A. E. Report of project I of the seventh annual nation-wide testing program. Bloomington, Ill.: Pub. School Publ. Co., 1931.—Gives nation-wide medians, with percentiles, of the tests in Battery A: reading, arithmetic computation and reasoning, language usage, and spelling. 225,000 pupils, in 44 states, participated.—L. A. Averill (Worcester State Normal School).

3270. Hurwitz, R. Another aspect of mental hygiene in the class room. *Ment. Hygiene*, 1931, 15, 17-33.—A description of the author's experience with adjustment classes over a period of about five years, indicating the part the teacher plays in mental hygiene, methods used, and the implications from the point of view of school management and the child's future mental health. The groups studied were very heterogeneous ones. Two methods were employed: first an authoritative or active method, designed to provide the children with a parent substitute; and second, a passive method, in which the teacher gradually withdrew this authority. This procedure was designed to lead the child to a better personal adjustment.—E. M. Ligon (Union).

3271. Jones, L. A critical analysis of the personal information blank in use at the State University of Iowa. *School & Soc.*, 1931, 33, 540-544.—The personal information blank filled out by students desiring admission to the University of Iowa was analyzed, the individual items being scrutinized from the point of view of their reliability and their predictive value as far as scholarship is concerned. Of the 55 items in the blank 47% had a reliability of .80 or over and 9%, a reliability of .50 or less. While the predictive value of most of the individual items was negligible, the multiple correlation of the total series with the students' grade point average for the first semester was .53. The personal information called for in the blank seemingly added little to the predictive efficiency of the placement tests, although some of the items probably have values other than that of forecasting college grades. It is felt, however, that the blank contains some dead timber. It is recommended that personal information blanks, generally, might with profit be analyzed and revised.—H. L. Koch (Chicago).

3272. Jones, V. What would you have done? Boston: Ginn, 1931. Pp. v + 178. \$.72. Character education through cases from biography; a manual for teachers, to accompany *What would you have done?* Boston: Ginn, 1931. Pp. 68. \$.28.—Proceeding upon the premise that character-building is one of the vital objectives of the schools and that differences in character are to a considerable ex-



tent acquired, the author has selected episodes from the youth of well-known and appealing characters to present problems which involve moral issues common to thirteen- and fourteen-year-old children of to-day. The accompanying manual for teachers details the method which has been found effective, that of free discussion of these episodes, leading to a thoughtful consideration of the question which is the title of the book. The procedure is not didactic and develops the power of children to make their own choices on higher planes each day because of their increasing appreciation of moral values and their ability to see relationships between the decisions to be made in their various activities.—*E. V. Brill* (Malone, N. Y.).

3273. Jutta, Sister M. *School discipline and character*. Milwaukee: Bruce, 1930. Pp. 324. \$2.00. *Marquette Monog. Educ.*, No. 6.—This volume aims to analyze from the moral standpoint the disciplinary means the classroom teacher uses in directing, guiding, and admonishing the child. The author discusses from this viewpoint the nature of the child, teacher personality, school routine, corrective measures, incentives, the task, and moral instruction as factors in discipline. A chapter on abnormal repressions indicates the unfortunate results of injudicious disciplinary measures. The sources upon which the author draws include her own long teaching, the experiences of her co-workers, and the literature of concrete cases. Considerable reference is made to the published works of experts in the field of education. The emphasis throughout is moral. The book is written from the standpoint of the best teachings of mental hygiene. An extensive annotated bibliography is appended.—*L. A. Averill* (Worcester State Normal School).

3274. Katz, D., Allport, F. H., & Jenness, M. B. *Students' attitudes; a report of the Syracuse University reaction study*. Syracuse, N. Y.: Craftsman Press, 1931. Pp. xxviii + 408. \$3.50.—A comprehensive study of student attitudes based on the Reaction Study at Syracuse University in 1926. The authors indicate factors bearing on the local situation in light of the intervening time and also contributions to the broader interests. The problems involved in questionnaire procedure and attitude studies are clearly discussed and the facts interpreted in the light of the same. The following factors are studied in detail: reasons for coming to college; selecting a certain college and remaining in same; college activities; curricular work; personal ideals of students; need for personal advice; choosing a vocation; fraternities; snobbishness; cribbing; co-education and moral standards of the sexes; religious beliefs; religious observances and attitudes towards churches; and changes in religious beliefs and practices during college life. The study is generally based upon an analysis of the six undergraduate schools, graduate school and total university ratings composed of the same. The religious factors investigated are based upon the College of Liberal Arts group only. Special emphasis is placed on the comparison of

fraternity and non-fraternity student attitudes. The details of the study correlated very closely with findings of former specific studies both locally and generally. An interesting contribution is the division of fraternity men into "institutionalist" (majority) and "individualist" (minority) types, with their respective attitudes as expressed by these terms. The changes in religious attitudes show a gradual change as over against the usual idea, or the more commonly expressed idea, of a sweeping collapse in beliefs and practices. A part of the general summary gives certain suggestions relating to psychology, sociology and political science in the way of recommending the procedures used for further investigation. The appendix includes a detailed statement of the techniques of attitude measurement and a summary of college attitude studies with bibliography.—*R. A. Brotemarkle* (Pennsylvania).

3275. Kelley, T. L., Buch, G. M., & Terman, L. M. *New Stanford Achievement Test, Form Y*. Yonkers-on-Hudson: World Book, 1931.—*R. R. Willoughby* (Clark).

3276. Langlie, T. A., & Eldredge, A. *Achievement in college and in later life*. *Person. J.*, 1931, 9, 450-454.—This study was undertaken to determine the relation between scholastic or extra-curricular achievement and vocational success of Wesleyan University alumni. The three highest and the three lowest ranking men in scholarship and in activities of twenty classes, 1897-1916, were selected. Ratings of their vocational achievements were obtained from twenty-five of their classmates. These ratings were compared with their achievements while undergraduates, and the following conclusions drawn: (1) scholastic and extra-curricular achievement are not related to a marked extent, though good scholars do achieve more along other lines, on the average, than poor scholars; (2) the most successful group, according to ratings, is the high scholarship group, followed by the high extra-curricular achievement group; (3) the least successful group is the low extra-curricular achievement group; (4) differences in scholastic achievement or in extra-curricular achievement are correlated to a marked extent with vocational achievement. The subjects studied were extreme cases, however, so the above conditions must be interpreted accordingly.—(Courtesy *Person. J.*).

3277. Leonard, J. P. *Leonard diagnostic test in punctuation and capitalization*. Forms A and B. Yonkers-on-Hudson: World Book, 1931.—For grades five to twelve inclusive.—*M. B. Jensen* (Michigan Central State Teachers College).

3278. Lingley, C. B. *Does college develop character?* *J. Higher Educ.*, 1931, 2, 177-182.—The author has gathered opinions of a number of Dartmouth students and alumni as to the agencies of the college which have had a definite influence upon their own character or upon the character of their friends. The general conclusions are that "the college should have as wide a variety of character-forming agencies as it is able to procure and operate

effectively" and "the college agency which is effective must have back of it a man who, in addition to his technical equipment, has those qualities which make him what the undergraduate terms 'human.'"—*R. A. Brotemarkle* (Pennsylvania).

3279. Osburn, W. J. *Wisconsin inventory tests in arithmetic*. Bloomington, Ill.: Pub. School Publ. Co., 1931.—4 tests, as follows: bridging in the addition of mixed numbers; bridging in the subtraction of mixed numbers; problem solving for grades 3, 4, and 5; and denominate numbers. With teacher's handbook.—*L. A. Averill* (Worcester State Normal School).

3280. Palmer, C. W. A proposed revision of the age-grade norms for the schools of Pennsylvania. *School & Soc.*, 1931, 33, 510-512.—*H. L. Koch* (Chicago).

3281. Sangren, P. V. The scholarship of faculties in American teachers' colleges and normal schools. *School & Soc.*, 1931, 33, 642-644.—*H. L. Koch* (Chicago).

3282. Scruggs, S. D. Remedial teaching for improvement in handwriting. *J. Educ. Res.*, 1931, 23, 288-295.—Results from negro children in 2 fifth-grade classes in two Kansas City schools. (33 and 28 cases.) The two classes were balanced for IQ. A preliminary test by the Ayres Scale was given. The first group were given the regular course of study; each pupil in the second group had his specimen individually analysed for him. These differences in class and individualized procedure were kept up for a 7-week period, when a retest was given. The results show that the individualized teaching is practical for these grades and that it leads to more rapid improvement inasmuch as this method makes the pupils more conscious of their faults and provides a workable technique for correcting and remedying them.—*S. W. Fernberger* (Pennsylvania).

3283. Simon, H. V. *Kongress für Heilpädagogik*. (Fifth congress for pedagogical hygiene.) *Zsch. f. psych. Hygiene*, 1931, 4, 26-30.—This is a short report of the congress held at Cologne, October 7-10, 1930.—*M. B. Mitchell* (Yale).

3284. Sims, V. M. Converting test scores to percentage grades. *School & Soc.*, 1931, 33, 596-598.—*H. L. Koch* (Chicago).

3285. Smith, D. V. *Class size in high school English*. Minneapolis: Univ. of Minnesota Press, 1931. Pp. xii + 309. \$2.50.—An investigation into the effects of class size on high school students and into the methods best adapted to classes of various sizes. About half of the book describes the methods that were found successful in handling classes of fifty pupils. Actual assignments and devices for conducting the large classes are given. There is also a summary of nearly all studies of class size in all subjects that appeared before June, 1930. The trend in class size is shown from these studies and from a hitherto unpublished investigation made by Earl Hudelson in 1929. The investigation proper

concerned two classes in ninth grade English for each of two years, 143 pupils in all, 41 of whom were taught in groups of 20 or 21 and 102 in groups of 48 or 51. The efficiency of instruction was independent of the size of the class in grammar, punctuation, capitalization, mechanics of reading, and composition, exclusive of letter writing. The small classes were definitely superior in letter writing and library work. Large classes were decidedly advantageous for progress in spelling, increase of vocabulary, knowledge of literature, and extent and variety of reading activities, including initiative in unsolicited contributions to classroom projects, amount of voluntary reading, and general spirit and enthusiasm for the work. Relations between pupils and teachers were thought to be better in the small than in the large classes, though later investigation indicated that more pupils with desirable character traits had been placed in the small class in both years than in the large class. The testimony of teachers and observers showed no awareness of general superiority of either large or small classes with respect to their effects on the pupils.—*M. B. Jensen* (Michigan Central State Teachers College).

3286. Stoddard, G. D. The social and educational conditions surrounding the appearance and development of individual differences of a psychological sort. Conference on individual differences in the character and rate of psychological development. (Iowa City, Iowa, December 28, 1930.) Washington: National Research Council, 1931. Pp. 20-33.—Studies are cited dealing with the following social and educational conditions: (1) modifiable physical status: tonsils; overweight and underweight; prematurity; (2) schooling: effect of nursery school training on IQ; individual instruction of gifted children; effect of practice on differences; (3) family conditions: position in family; family size; social and economic status of family; (4) geographical factors: rural-city comparisons; (5) general environment: nature-nurture considerations; (6) conditions of testing: inadequate measuring devices; wrong use of good devices. There are 35 references to studies summarized in the paper.—*E. R. Hilgard* (Yale).

3287. Torgerson, T. L. *Public School Achievement Tests, Form 4. Battery B and Battery C*. Bloomington, Ill.: Pub. School Publ. Co., 1931. With teacher's handbook.—Battery B, for grades 6 to 8, comprises tests in grammar, history and geography. Battery C, for grades 4 to 8, comprises tests in nature study and in health.—*L. A. Averill* (Worcester State Normal School).

3288. Whitney, F. L., & Goodman, A. K. The economic status of teachers' college and university faculties. *J. Educ. Res.*, 1931, 23, 308-318.—Statistical treatment of 73 members of 20 teachers college faculty families are compared with Peixotto's results for university faculty members. The results show that both groups compare closely to the average urban family; in neither group is the balance



between income and expenditure well maintained.—*S. W. Fernberger* (Pennsylvania).

3289. Wiedefeld, M. T., & Walther, E. C. Wiedefeld-Walther geography test. Yonkers: World Book, 1931. 12-page test booklet in two forms; 12-page manual; scoring key; report to author.—A test for use in grades 3-9, administration time 60 minutes. Test 1, reading, is in multiple-choice form; test 2, organization, multiple-choice; test 3, map and graph reading, short-answer; test 4, geography vocabulary, multiple-choice; test 5, geographical relationships, matching; test 6, place geography, matching. Inter-form reliability, .80 to .95. Tables based on 2500 cases give grade equivalents of scores, percentile ranks by grades, and grade medians for each test.—*R. R. Willoughby* (Clark).

3290. Wiggam, A. E., & Vischer, S. S. Needed: faculty family allowances. *Eugenics*, 1930, 3, 443-446.—(*Soc. Sci. Abst.* III: 8203).

3291. Worcester, D. A. Purpose and college attendance. *J. Higher Educ.*, 1931, 2, 190-194.—Cognizant of the general statement that students carrying Latin in secondary schools did better work in college than those who had not had this language background and observing that the Latin group also had had a fixed purpose of attending college over a longer period of time, the author directed a study of 50 students belonging to each group in the Teachers College of the University of Nebraska. The Latin group had a slightly higher standing in mental ability on the basis of the Otis Self-Administering Test and also did slightly better in the first term academic work. A personal interview indicated that the Latin group had consistently planned to go to college over a long period of years and that they came from homes where the general intellectual environment motivated them toward not only the carrying of Latin but the more successful completion of other secondary school work. The author is uncertain as to whether the factors of mental ability and environment are the causes or effects. He feels that it is an important point to note the difference between the backgrounds and abilities of the two groups of students.—*R. A. Brotemarkle* (Pennsylvania).

[See also abstracts 3185, 3204, 3301, 3302.]

# BIOMETRY AND STATISTICS

3292. Baker, G. A. The significance of the product-moment coefficient of correlation with special reference to the character of the marginal distributions. *J. Amer. Statist. Asso.*, 1930, 25, 387-396.—(*Soc. Sci. Abst.* III: 8361).

3293. Davies, G. R. First moment correlation. *J. Amer. Statist. Asso.*, 1930, 25, 413-427.—(*Soc. Sci. Abst.* III: 8363).

3294. Pretorius, S. J. Skew bivariate frequency surfaces, examined in the light of numerical illustrations. *Biometrika*, 1930, 22, 108-223.—A very thorough study, giving (1) an account of surfaces

that have been evolved, (2) a geometrical analysis of a few observed distributions, hence (3) a practical test of some of the hypothetical surfaces, and (4) conclusions concerning the adequacy of surfaces by fitting their marginal and partial moment curves to the observations. The curves developed by Steffanson, Narumi, Pearson, Edgeworth, and Jorgensen "will be serviceable in certain special cases, but no satisfactory solution to the general problem has yet been reached."—*E. B. Greene* (Michigan).

3295. Sheppard, W. F. Mathematics for the study of frequency statistics. *Math. Gaz.*, 1930, 15, 232-249.—(*Soc. Sci. Abst.* III: 8360).

3296. Struik, D. J. Correlation and group theory. *Bull. Amer. Math. Soc.*, 1930, 36, 869-878.—(*Soc. Sci. Abst.* III: 8374).

3297. Wishart, J. The derivation of certain high order sampling product moments from a normal population. *Biometrika*, 1930, 22, 224-238.—*R. A. Fisher's* derivation of formulae for product-moments up to the 10th and 12th degrees is extended by the writer and simplified. Procedure is also outlined for the non-normal case. These formulae are useful when "it is desired to proceed to a higher degree of approximation in order to test the convergence of the series reached, particularly for the higher semi-invariants, and so to determine how large the sample must be before deductions can safely be drawn as to normality or otherwise of the population from which the sample has been taken."—*E. B. Greene* (Michigan).

[See also abstract 3002.]

# MENTAL TESTS

3298. Beck, S. J. The Rorschach test and personality diagnosis. I. The feeble-minded. *Amer. J. Psychiat.*, 1930, 10, 19-52.—The Rorschach ink-blot test was administered to 87 feeble-minded children, in the New York City Children's Hospital, Randall's Island. The records of 69 were found suitable for analysis. Rorschach's principal concepts are substantiated by the findings; one of Rorschach's findings is not substantiated. The test is stated to hold promise as a personality probing instrument, but the norms are at present inadequate.—*S. J. Beck* (Boston Psychopathic Hospital).

3299. Bradshaw, F. F. American Council on Education Rating Scale: its reliability, validity and use. *Arch. of Psychol.*, 1930, No. 119. Pp. 80.—This study had three aims: (1) to summarize the tested knowledge concerning the construction, reliability, validity, and uses of rating scales as a personnel tool, (2) to furnish an understanding of its reliability and validity, and (3) to offer a description of procedure to be followed in constructing and testing a rating scale for use in educational personnel procedure. The American Council Scale includes more of the accepted features than others examined. The reliabilities of this scale are as high as any previously studied intensively. Its validity coefficients are at

least suggestive of its possible value in college personnel administration. It is of doubtful value for record unless raters are trained, their variability studied, and the validity of ratings submitted to careful check in each situation where they are to be used. Further development would probably be stimulated if "habits" and "achievements" were more frequently substituted for "traits."—*E. M. Achilles* (Columbia).

3300. Erschowitz, N. Ein Beitrag zur Frage der Beziehung zwischen Augenmass und Intelligenz. (A contribution to the question of the relation between estimation and intelligence.) *Indus. Psychotechn.*, 1930, 7, 264-270.—(*Soc. Sci. Abst.* III: 8146).

3301. Gardner, G. E. Mental testing and the school nurse. *Ment. Hygiene*, 1931, 15, 101-105.—This paper defends the thesis that the rural-school nurse would be of inestimable value to the community that she serves if she had a working knowledge of intelligence tests and their application. This is possible with a small amount of additional training and is a valuable asset in dealing with the health of the community.—*E. M. Ligon* (Union).

3302. Grace, A. G. The mental abilities of adults in school. *J. Educ. Res.*, 1931, 23, 321-324.—Study of 3,819 adults tested by three forms of the Otis test, the Thorndike Test of Word Knowledge, the Terman Group Test and the Ohio State Psychological Test, indicates that 63% have average mental ability; 20% slow, 10% superior and 6% very superior. For the question of adult education, the author recommends that the 20% registered as slow should definitely be eliminated from college preparatory, diploma and certificate courses.—*S. W. Fernberger* (Pennsylvania).

3303. Hendrickson, G. An abbreviation of Army Alpha. *School & Soc.*, 1931, 33, 467-468.—The short form, composed of the synonym-antonym, disarranged sentences, analogies, and general information tests and requiring a working time of 10½ minutes, correlates  $.966 \pm .006$  with the complete Alpha and has a reliability of .912.—*H. L. Koch* (Chicago).

3304. Hesse, K. Die Heeresseignungsprüfungen. (The army aptitude tests.) *Indus. Psychotechn.*, 1930, 7, 372-378.—(*Soc. Sci. Abst.* III: 8354).

3305. Newell, C. D. The uses of the form board in the mental measurement of children. *Psychol. Bull.*, 1931, 28, 309-318.—A review of the literature and a classification into eight groups on the basis of the problems presented for solution. A bibliography of 90 titles is presented in alphabetical order and also in classified order.—*J. F. Dashiell* (North Carolina).

3306. Oosthuizen, P. J. Efficiency of the Vineland adjustment score card for measuring social behavior. *J. Educ. Res.*, 1931, 23, 280-287.—Consideration of Yepsen's work which indicate that this measure is free from subjective opinions, that it does not test intelligence, that it measures the individual's social behavior in relation to his particular environment and that it yields consistent results.—*S. W. Fernberger* (Pennsylvania).

3307. Poull, L. E., Bristol, S. S., King, H. B., & Peatman, L. B. The Randall's Island performance series; two, three and four year tests. New York: Columbia Univ. Press, 1931. Pp. 22. \$1.00.—Directions for giving and scoring together with bibliography. The tests are grouped as follows: I. Manual planning—cubes in a box, nest of cubes, block building, and pyramids of three and six cubes. II. Manual dexterity—cutting with scissors, one, two and four buttons, and Wallin pegs, a and b. III. Imitation of movements—drawing up string, Knox cubes. IV. Form perception—Deeroly picture game, Seguin board. V. Eye-hand coordination—drawing and paper folding. VI. Adaptation board (Pintner-Paterson). VII. Color sorting (procedure adapted from Rachel Stutsman, unpublished). VIII. Counting sticks (procedure quoted in part from Bird T. Baldwin and Lorle I. Stecher in *The Psychology of the Preschool Child*). IX. Social orientation—Pintner-Paterson manikin test and Stutsman's picture puzzles 1, 2 and 3.—*M. B. Jensen* (Michigan Central State Teachers College).

[See also abstracts 3165, 3210, 3233.]



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